Среды для культивирования клеток McCoy's 5A, Ham's F-12, Ham's F-12K, DMEM, RPMI, MEM

Технические характеристики

Виды товаров: среды, модифицированные по методу Дульбекко, DMEM, с низким и высоким содержанием глюкозы, минимальные необходимые среды, среды RPMI, базальные среды Ham's F-12, Ham's F-12K, модифицированные среды общего назначения McCoy's 5A, безглюкозные среды, Среда Лейбовица, порошки среды для клеточных культур и др.

По вопросам продаж и поддержки обращайтесь:

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Servicebio® DMEM, high glucose, GlutaPlus, Sodium Pyruvate, no HEPES

Cat. No.: G4511-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, High Glucose, GlutaPlus, Sodium Pyruvate, no HEPES	G4511-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, 4.0 mM L-alanyl-L-glutamine and 1.0 mM sodium pyruvate, phenol red indicator, no HEPES buffer system.

L-alanyl-L-glutamine, is a cell culture additive that replaces medium moles of L-glutamine in cell culture media. The substance is stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.





Components	Conce	ntration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO₄) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	6400	109.50
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	-	-
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Glutamine	_	_			
L-Alanyl-L-Glutamine	869	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			
i-Inositol	7.2	0.0389			

G4511 DMEM Medium Formula



DMEM, High Glucose, GlutaPlus, no Leucine

Cat.No. : G4511DLEU-500ML Brand : Servicebio Spec.: 500 mL (L-Alanyl-L-Glutamine, no L-leucine)	Online Consul	tation
Brand : Servicebio Spec.: 500 mL (L-Alanyl-L-Glutamine, no L-leucine)	Cat.No. :	G4511DLEU-500ML
Spec.: 500 mL (L-Alanyl-L-Glutamine, no L-leucine)	Brand :	Servicebio
	Spec.:	500 mL (L-Alanyl-L-Glutamine, no L-leucine)

Share

Product Introduction		
ProductInformation		
Product Name	Cat. No.	Spec.
DMEM, High Glucose, GlutaPlus, noleucine	G4511DLEU-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

The mammalian target of rapamycin (mTOR) complex 1 (mTORC1) plays an important role in cell growth and metabolism. In recent years, Leucine (Leu) activation of mTORC1 has become more of a research hotspot (Appuhamy et al., 2012; Averous et al., 2016; Dai et al., 2015; Gu et al., 2022; Kim et al., 2017; Son et al., 2019; Takayama et al., 2018). Therefore there is a need for leucine-deficient cell culture medium for basic research at the cellular levels.

This product is a modified medium based on DMEM high glucose medium with L-leucine removed and sterilized by 0.1 filter membrane, pH 7.0-7.4. Please check the official website for specific ingredients and concentrations.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wearsafety glasses, gloves or protective clothing.



Servicebio® DMEM, high glucose, Pen-Strep

Cat. No.: G4511PS-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, High Glucose, Pen-Strep	G4511PS-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

L-alanyl-L-glutamine, is a cell culture additive that replaces medium moles of L-glutamine in cell culture media. The substance is stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Penicillin can interfere with the synthesis of bacterial cell walls and is especially effective against gram-positive bacteria. Streptomycin can bind to the 30S subunit of the bacterial ribosome and inhibit the synthesis of bacterial proteins. It is effective against both gram-negative and Gram-positive bacteria, but it is particularly effective against Gram-negative bacteria. The combination of penicillin and streptomycin can prevent most bacterial contamination.

The major character of this medium is as follows:

- With 25 mM Glucose,4.0 mM GlutaPlus, phenol red
- With 1.0 sodium pyruvate
- With 100 KU/L penicillin G sodium salt, 100 mg/L streptomycin sulfate
- Without HEPES

The complete formulation is available.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- Avoid freezing the medium, as ice formation can lead to precipitation of nutrients, which may not fully
 dissolve upon thawing, affecting cell culture performance. Additionally, when storing the medium at
 2-8°C in a refrigerator, do not place it directly against the inner wall to prevent local chilling that could
 cause the medium to freeze.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Servicebio® DMEM, high glucose, GlutaPlus, HEPES, no Sodium Pyruvate

Cat. No.: G4512-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, high glucose, GlutaPlus, HEPES, no Sodium Pyruvate	G4512-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1μ m filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, 4.0 mM GlutaPlus, phenol red indicator and HEPES buffer system, no sodium pyruvate.

GlutaPlus, L-alanyl-L-glutamine, is a cell culture additive that replaces medium moles of L-glutamine in cell culture media. The substance is stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded by a peptidase secreted by cells to release glutamine, which is then taken up and used by cells.

HEPES is an excellent biological buffering agent with no toxic effect on cells. The medium supplemented with HEPES can maintain a constant pH range for a long time.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Components	Concen	tration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O$)	0.1	0.0002
hydrochloride					
L-Cystine	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
dihydrochloride					
L-Histidine	42	0.2	Potassium Chloride (KCl)	400	5.36
hydrochloride-H2O					
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO ₃)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.9
L-Lysine	146	0.8	Sodium Phosphate monobasic (NaH ₂ PO ₄) (anhyd.)	108.7	0.906
hydrochloride					
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	-	_
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium	103.79	0.4			
salt dihydrate					
L-Valine	94	0.8			
L-Glutamine	-	_			
L-Alanyl-L-Glutamine	e 869	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium	4.0	0.0084			
pantothenate					
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine	4.0	0.0195			
hydrochloride					
Riboflavin	0.4	0.0011			
Thiamine	4.0	0.0119			
hydrochloride					
i-Inositol	7.2	0.0389			

G4512 DMEM (High Glucose) Medium Formula



Servicebio[®] DMEM, high glucose, without L-glutamine

Cat No. G4514

Product content

Name	Cat No.	Size
DMEM/High Glucose, without L-glutamine	G4514-500ML	500 mL

Product description

DMEM (Dulbecco's Modified Eagle Medium) is one of the most commonly used basal medium for supporting the growth of many different mammalian cells. DMEM is unique from other media as it contains 4 times the concentration of amino acids and vitamins than the original Eagle's Minimal Essential Medium. Servicebio DMEM media preparations are available in high or low glucose or no glucose formulations, as well as with or without L-glutamine and sodium pyruvate. Servicebio DMEM media include phenol red as a pH indicator. All available DMEM media products contain a sodium bicarbonate buffer with or without HEPES to maintain optimal culture pH.

DMEM is sutiable for primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as Hela, 293, Cos-7 and PC-12. DMEM contains no proteins, lipids, or growth factors. Therefore, DMEM requires supplementation, commonly with 10% Fetal Bovine Serum (FBS). DMEM uses a sodium bicarbonate buffer system (3.7 g/L), and therefore requires a 5–10% CO₂ environment to maintain physiological pH.

All raw material components used for Servicebio cell culture media products are screened through using strict quality control testing. Servicebio cell culture media are manufactured at a cGMP-compliant facility using water for injection, filtered through final 0.1 µm sterile filtration and aseptic filled in a Hundred-stage FFU. The filter integrity tests are performed before and after filtration. Each lot of cell culture media are subjected to sterility test, pH, osmolality, endotoxin and cell culture test.

The major character of this DMEM is as follows:

- With 25 mM D-Glucose, phenol red.
- Without HEPES, L-glutamine, sodium pyruvate. The complete formulation is available.

Storage

Storage conditions: $2^{\circ}C$ to $8^{\circ}C$, protect from light Shipping conditions: Ambient Shelf life: 12 months from date of manufacture



Servicebio® DMEM, high glucose, GlutaPlus, HEPES, Sodium Pyruvate

Cat. No.: G4515-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, high glucose, GlutaPlus, HEPES, Sodium Pyruvate	G4515-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by $0.1\,\mu$ m filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, 4.0mM L-alanyl-L-glutamine, 1.0mM sodium pyruvate, phenol red indicator and 25 mM HEPES buffer system.

HEPES is an excellent biological buffer with no toxic effect on cells. The medium supplemented with HEPES can maintain a constant pH range for a long time.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

Note

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.

For Research Use Only! Not for use in diagnostic procedures! Version: 1.0-202106



Components	Conce	ntration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389

G4515 DMEM(High Glucose) Medium Formula



Servicebio® DMEM, high glucose, HEPES, no L-Glutamine, no Sodium Pyruvate

Cat #: G4516-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, high glucose, HEPES, no L-Glutamine, no Sodium Pyruvate	G4516-500ML	500 mL

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

The product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, phenol red indicator, and 25 mM HEPES buffer system. no L-glutamine and sodium pyruvate.

HEPES is an excellent biological buffering agent with no toxic effect on cells. The medium supplemented with HEPES can maintain a constant pH range for a long time.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



DMEM(High Glucose) Medium Formula

Components	Concentration		
	mg/L	mM	
Amino acids			
Glycine	30	0.4	
L-Arginine hydrochloride	84	0.4	
L-Cystine dihydrochloride	62.6	0.2	
L-Histidine hydrochloride-H2O	42	0.2	
L-Isoleucine	105	0.8	
L-Leucine	105	0.80	
L-Lysine hydrochloride	146	0.8	
L-Methionine	30	0.2	
L-Phenylalanine	66	0.4	
L-Serine	42	0.4	
L-Threonine	95	0.8	
L-Tryptophan	16	80.0	
L-Tyrosine disodium salt	103.79	0.4	
dihydrate			
L-Valine	94	0.8	
L-Glutamine	584	4.0	
Vitamins			
Choline chloride	4.0	0.0286	
D-Calcium pantothenate	4.0	0.0084	
Folic Acid	4.0	0.0091	
Niacinamide	4.0	0.0328	
Pyridoxine hydrochloride	4.0	0.0195	
Riboflavin	0.4	0.0011	
Thiamine hydrochloride	4.0	0.0119	
i-Inositol	7.2	0.0389	

Components	Concentration		
	mg/L	mM	
Inorganic salts			
Calcium Chloride (CaCl2) (anhyd.)	200	1.80	
Ferric nitrate nonahydrate (Fe(NO3)3•9H2O)	0.1	0.0002	
Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80	
Potassium Chloride (KCl)	400	5.36	
Sodium Bicarbonate (NaHCO3)	3700	44.04	
Sodium Chloride (NaCl)	4750	81.2	
Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906	
Other components			
D-Glucose (Dextrose)	4500	24.98	
Sodium pyruvate	110	1.0	
HEPES	5958	25	
Phenol Red	14.95	0.0422	



Servicebio® DMEM, high glucose, HEPES, Sodium Pyruvate, no L-Glutamine

Cat #: G4517-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, high glucose, HEPES, Sodium Pyruvate, no L-Glutamine	G4517-500ML	500 mL

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, phenol red indicator, 25 mM HEPES buffer system, 1.0 mM sodium pyruvate, no L-glutamine.

HEPES is an excellent biological buffering agent with no toxic effect on cells. The medium supplemented with HEPES can maintain a constant pH range for a long time.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



DIVIEIVI(High Glucose) Medium Formula

Components	Conce	Concentration		
	mg/L	mM		
Amino acids			Inorg	
Glycine	30	0.4	Calciu	
L-Arginine hydrochloride	84	0.4	Ferric	
L-Cystine dihydrochloride	62.6	0.2	Magn	
L-Histidine hydrochloride-H2O	42	0.2	Potas	
L-Isoleucine	105	0.8	Sodiu	
L-Leucine	105	0.80	Sodiu	
L-Lysine hydrochloride	146	0.8	Sodiu	
L-Methionine	30	0.2	Other	
L-Phenylalanine	66	0.4	D-Glu	
L-Serine	42	0.4	Sodiu	
L-Threonine	95	0.8	HEPES	
L-Tryptophan	16	0.08	Pheno	
L-Tyrosine disodium salt	103.79	0.4		
dihydrate				
L-Valine	94	0.8		
L-Glutamine	-	-		
L-Alanyl-L-Glutamine	-	-		
Vitamins				
Choline chloride	4.0	0.0286		
D-Calcium pantothenate	4.0	0.0084		
Folic Acid	4.0	0.0091		
Niacinamide	4.0	0.0328		
Pyridoxine hydrochloride	4.0	0.0195		
Riboflavin	0.4	0.0011		
Thiamine hydrochloride	4.0	0.0119		
i-Inositol	7.2	0.0389		

Components	Conce	ntration
	mg/L	mM
Inorganic salts		
Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O$)	0.1	0.0002
Magnesium Sulfate (MgSO₄) (anhyd.)	97.67	0.80
Potassium Chloride (KCI)	400	5.36
Sodium Bicarbonate (NaHCO3)	3700	44.04
Sodium Chloride (NaCl)	4750	81.9
Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906
Other components		
D-Glucose (Dextrose)	4500	24.98
Sodium pyruvate	110	1.0
HEPES	5958	25
Phenol Red	14.95	0.0422



Servicebio® DMEM, high glucose, no L-Glutamine, no calcium

Cat. No.: G4519-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, high hlucose, no L-Glutamine, no calcium	G4519-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVEC and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7 and PC-12.

This product contains many kinds of amino acids, vitamins, inorganic salts and other ingredients required for cell culture, does not contain protein or growth factors, need to be added according to the type of cells 5-10% serum or serum-free additives to use.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, containing 25 mM D-glucose, with phenol red indicator, calcium ion, L-glutamine, sodium pyruvate have not been added, and does not contain HEPES buffer system.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, ,do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	ntration	Components		
	mg/L	mМ			
Amino acids			Inorganic salts		
Glycine	30	0.4	Ferric nitrate noi		
L-Arginine hydrochloride	84	0.4	Magnesium Sulf		
L-Cystine 2HCI	62.6	0.2	Potassium Chlor		
L-Histidine hydrochloride- H_2O	42	0.2	Sodium Bicarboi		
L-Isoleucine	105	0.8	Sodium Chloride		
L-Leucine	105	0.8	Sodium Phospha		
L-Lysine hydrochloride	146	0.8	Other compone		
L-Methionine	30	0.2	D-Glucose (Dext		
L-Phenylalanine	66	0.4	Phenol Red		
L-Serine	42	0.4			
L-Threonine	95	0.8			
L-Tryptophan	16	0.08			
L-Tyrosine disodium salt	103.79	0.4			
dihydrate dihydrate					
L-Valine	94	0.8			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			
Meso-Inositol	7.2	0.0389			

G4519 DMEM (High Glucose) Medium Formula

Components Concentra			
	mg/L	mM	
Inorganic salts			
Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O$)	0.1	0.0002	
Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80	
Potassium Chloride (KCl)	400	5.36	
Sodium Bicarbonate (NaHCO3)	3700	44.04	
Sodium Chloride (NaCl)	6400	109.50	
Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906	
Other components			
D-Glucose (Dextrose)	4500	24.98	
Phenol Red	14.95	0.0422	



Servicebio[®] DMEM, high glucose, GlutaPlus, no HEPES, no Sodium Pyruvate

Cat. No.: G4523

Product Information

Product Name	Cat. No.	Spec.	
DMEM, high glucose, GlutaPlus, no HEPES, no	C4523 500MI	500 mL	
Sodium Pyruvate	G4523-500IVIL		

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by $0.1 \,\mu$ m filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, 4.0mM L-alanyl-L-glutamine and phenol red indicator, no HEPES buffer system and sodium pyruvate.

L-alanyl-L-glutamine, is a cell culture additive that replaces medium moles of L-glutamine in cell culture media. The substance is stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concer	ntration	Components	Concer	ntration
Components	mg/L	mM	Components	mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO₃)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	6400	109.50
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd) 108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	-	-
L-Threonine	95	0.8	HEPES	-	-
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodiur salt dihydrate	m 103.79	0.4			
L-Valine	94	0.8			
L-Glutamine	-	-			
L-Alanyl-L-Glutamin	e 869	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

7.2

i-Inositol

0.0389

G4523 DMEM (High Glucose) Medium Formula



Servicebio® DMEM, high glucose, GlutaPlus, 1.5 g/L Sodium Bicarbonate

Cat. No.: G4524-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, high glucose, GlutaPlus, 1.5 g/L Sodium Bicarbonate	G4524-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVEC and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7 and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is a modified DMEM high glucose medium according to ATCC 30-2002. It contains 1.5 g/L sodium bicarbonate and sodium pyruvate.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, 1.5 g/L sodium bicarbonate, 4.0 mM L-alanyl-L-glutamine, 1.0 mM sodium pyruvate and phenol red indicator, no HEPES buffer system.

L-alanyl-L-glutamine, a cell culture additive, replaces medium molar L-glutamine in cell culture medium. The substance is very stable in aqueous solution and does not degrade spontaneously, it is slowly degraded by a peptidase secreted by the cells to release glutamine, which is then absorbed and used by the cells.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, ,do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	ntration	Components	Conce	ntration
	mg/L	mМ		mg/L	mМ
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine 2HCl	62.6	0.2	Magnesium Sulfate (MgSO₄) (anhyd.)	97.67	0.80
L-Histidine hydrochloride- H_2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO ₃)	1500	17.85
L-Leucine	105	0.8	Sodium Chloride (NaCl)	6400	109.50
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	-	-
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	869	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			
Meso-Inositol	7.2	0.0389			

G4524 DMEM (High Glucose) Medium Formula



Servicebio® DMEM, high glucose, GlutaPlus, no Phenol Red

Cat. No.: G4525-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, high glucose, GlutaPlus, no Phenol Red	G4525-500ML	500 mL

Product Description

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVEC and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7 and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

L-alanyl-L-glutamine, a cell culture additive, replaces medium molar L-glutamine in cell culture medium. The substance is very stable in aqueous solution and does not degrade spontaneously, it is slowly degraded by a peptidase secreted by the cells to release glutamine, which is then absorbed and used by the cells, avoidance of toxicity to cells from spontaneous degradation of L-glutamine.

Phenol Red is the most commonly used pH indicator in cell culture medium and is used to continuously monitor the pH of the culture medium. When the pH of the culture medium is low, the culture medium appears orange to yellow, when the pH is high, the culture medium appears purple-red. The culture medium is red when the pH is 7.0-7.4, it is most suitable for cell culture. Phenol Red is a structural analogue of steroid hormone. Studies have shown that phenol red added to the medium mimics the effects of steroid hormones (especially estrogen) and therefore when used in estrogen-sensitive cells, for example, for breast tissue cells, it is best to use a phenol red-free medium. In addition, phenol red also can interfere with flow cytometry analytical assays.

This product is filtered and sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains 25 mM D-glucose, 4.0 mM L-alanyl-L-glutamine, 1.0 mM sodium pyruvate, without phenol red indicator and HEPES buffer system.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, ,do not freeze and thaw repeatedly.



Components	Conce	entration	Components	Conce	ntration
	mg/L	mM		mg/L	mМ
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O$)	0.1	0.0002
L-Cystine 2HCI	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride- H_2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO ₃)	3700	44.04
L-Leucine	105	0.8	Sodium Chloride (NaCl)	6400	109.50
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	-	-
L-Tryptophan	16	0.08	Phenol Red	-	-
L-Tyrosine disodium salt	103.79	0.4			
dihydrate dihydrate					
L-Valine	94	0.8			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	869	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			
Meso-Inositol	7.2	0.0389			

G4525 DMEM (High Glucose) Medium Formula



Servicebio® DMEM, low glucose, GlutaPlus, Sodium Pyruvate, no HEPES

Cat. No.: G4520-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, low glucose, GlutaPlus, Sodium Pyruvate, no HEPES	G4520-500ML	500 mL

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM. DMEM is divided into low and high glucose according to the glucose content. DMEM low glucose medium is suitable for the culture of slow metabolizing, dependent adherent cells.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 4.0 mM L-alanyl-L-glutamine, 1.0 mM sodium pyruvate, phenol red indicator, without HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Components		Con
	mg/L	mM			mg/L
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂)(anhyc	ł.	ł.) 200
L-Arginine	84	0.4	Ferric nitrate nonahydrate		0.1
hydrochloride			(Fe(NO ₃) ₃ •9H ₂ O)		
L-Cystine	62.6	0.2	Magnesium Sulfate (MgSO ₄)		97.67
dihydrochloride			(anhyd.)		
L-Histidine	42	0.2	Potassium Chloride (KCl)		400
hydrochloride-H2O					
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO $_{\scriptscriptstyle 3}$)) 3700
L-Leucine	105	0.8	Sodium Chloride (NaCl)		6400
L-Lysine	146	0.8	Sodium Phosphate monobasic)	: 108.7
hydrochloride			(NaH_2PO_4) (anhyd.)		
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)		1000
L-Serine	42	0.4	Sodium pyruvate		110
L-Threonine	95	0.8	Phenol Red		14.95
L-Tryptophan	16	0.08			
L-Tyrosine disodium	103.79	0.4			
salt dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium	4.0	0.0084			
pantothenate					
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine	4.0	0.0195			
hydrochloride					
Riboflavin	0.4	0.0011			
Thiamine	4.0	0.0119			
hydrochloride					
i-Inositol	7.2	0.0389			

G4520 DMEM(Low Glucose) Medium Formula



Servicebio® DMEM, low glucose, HEPES, no L-Glutamine, no Sodium Pyruvate

Cat #: G4521-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, low glucose, HEPES, no L-Glutamine, no Sodium Pyruvate	G4521-500ML	500 mL

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 25 mM HEPES buffer system, phenol red indicator, no L-glutamine and sodium pyruvate.

HEPES is an excellent biological buffering agent with no toxic effect on cells. The medium supplemented with HEPES can maintain a constant pH range for a long time.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Components	Conce	entration	Components	Conce	entratio
	mg/L	mM	_	mg/L	m
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl₂)(anhyd) 200	1.80
L-Arginine	84	0.4	Ferric nitrate nonahydrate	0.1	0.000
hydrochloride			(Fe(NO ₃) ₃ •9H ₂ O)		
L-Cystine	62.6	0.2	Magnesium Sulfate (MgSO ₄)	97.67	0.80
dihydrochloride			(anhyd.)		
L-Histidine	42	0.2	Potassium Chloride (KCI)	400	5.36
hydrochloride-H2O					
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO ₃)	3700	44.04
L-Leucine	105	0.8	Sodium Chloride (NaCl)	6400	109.5
L-Lysine	146	0.8	Sodium Phosphate monobasic	108.7	0.906
hydrochloride			(NaH ₂ PO ₄) (anhyd.)		
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	1000	5.55
L-Serine	42	0.4	Sodium pyruvate	_	_
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.042
L-Tyrosine disodium	103.79	0.4			
salt dihydrate					
L-Valine	94	0.8			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	-	-			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium	4.0	0.0084			
pantothenate					
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine	4.0	0.0195			
hydrochloride					
Riboflavin	0.4	0.0011			
Thiamine	4.0	0.0119			
hydrochloride					
i-Inositol	7.2	0.0389			

DMEM(Low Glucose) Medium Formula



Servicebio® DMEM, Low Glucose, no Phenol Red Cat. No.: G4580-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, Low Glucose, no Phenol Red	G4580-500ML	500 mL

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose and 1.0 mM sodium pyruvate, no L-glutamine, no HEPES buffer system, no phenol red indicator.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Components	Conce	entration	Components	Concentrati	
	mg/L	mM	_	mg/L	
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂)(anhyd	.) 200	1.80
L-Arginine	84	0.4	Ferric nitrate nonahydrate	0.1	0.00
hydrochloride			(Fe(NO ₃) ₃ •9H ₂ O)		
L-Cystine	62.6	0.2	Magnesium Sulfate (MgSO ₄)	97.67	0.80
dihydrochloride			(anhyd.)		
L-Histidine	42	0.2	Potassium Chloride (KCI)	400	5.36
hydrochloride-H2O					
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO ₃)	3700	44.0
L-Leucine	105	0.8	Sodium Chloride (NaCl)	6400	109
L-Lysine	146	0.8	Sodium Phosphate monobasic	108.7	0.90
hydrochloride			(NaH ₂ PO ₄) (anhyd.)		
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	1000	5.55
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	-	_
L-Tryptophan	16	0.08	Phenol Red	_	_
L-Tyrosine disodium	103.79	0.4			
salt dihydrate					
L-Valine	94	0.8			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	-	-			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium	4.0	0.0084			
pantothenate					
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine	4.0	0.0195			
hydrochloride					
Riboflavin	0.4	0.0011			
Thiamine	4.0	0.0119			
hydrochloride					
i-Inositol	7.2	0.0389			

DMEM(Low Glucose) Medium Formula



Servicebio® MEM, NEAA, no L-Glutamine, no HEPES

Cat. No.: G4550-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, NEAA, no L-Glutamine, no HEPES	G4550-500ML	500 mL

Product Description/Introduction

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

MEM which contains NEAA (non-essential amino acids) is based on MEM with the addition of 7 NEAA, including L-Alanine, L-Glutamic acid, L-Asparagine, L-Aspartic acid, L-Proline, L-Serine and Glycine, to reduce the side effects of cells' own synthesis of non-essential amino acids during cell culture and effectively promote cell proliferation and metabolism.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, phenol red indicator, without L-glutamine, sodium pyruvate and HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	entration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine	126.0	0.5972	Calcium Chloride	200	1.802
hydrochloride			(CaCl₂)(anhyd.)		
L-Cystine	31.0	0.09904	Magnesium Sulfate	200	0.813
dihydrochloride			heptahydrate (MgSO ₄ ·7H ₂ O)		
L-Glutamine	-	-	Potassium Chloride (KCl)	400	5.333
L-Histidine HCI H ₂ O	42.0	0.20	Sodium Bicarbonate (NaHCO ₃)	2200	26.19
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6800	117.2
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic	122	1.014
	72.0	0 2000	$(Na \square_2 PO_4)$ (annyu.)		
L-Lysine	13.0	0.3303			
	15.0	0 1007	D. Clucoso (Doxtroso)	1000	5 5 5 6
	22.0	0.1020	Phonol Rod	0.00	0.02657
	J2.0	0.1939		5.4	0.02037
	40.0	0.4004		-	-
	10.0 52.0	0.04902			
Salt Dihydrate	52.0	0.1332			
L-Valine	46.0	0 3932			
Glycine	8.0	0.1067			
L-Alanine	9.0	0.1011			
L-Asparagine	14.8	0.09848			
monohydrate					
L-Aspartic Acid	13.0	0.09774			
L-Glutamic Acid	15.0	0.1020			
L-Proline	12.0	0.1043			
L-Serine	11.0	0.1048			
Vitamins					
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			
hydrochloride					
Riboflavin	0.10	0.0002660			
Thiamine	1.0	0.002967			
hydrochloride					

G4550 MEM Formula



Servicebio® MEM, NEAA, GlutaPlus, HEPES

Cat. No.: G4551-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, NEAA, GlutaPlus, HEPES	G4551-500ML	500 mL

Product Description

Minimum Essential Medium (MEM), which is also known as Low Limited Eagle Medium, is one of the most commonly used basic media in animal cell culture. MEM contains only 12 kinds of essential amino acids, 8 kinds of vitamins and basic inorganic salts, and has simple nutritional composition. It is mainly used for culture of adherent cells, and can also be used for culture of other types of cells culture with a modified formulation.

MEM containing NEAA (non-essential amino acids) is supplemented with seven kinds of NEAA, including L-alanine, L-glutamic acid, L-asparagine, L-aspartate, L-proline, L-serine and glycine, which can reduce the side effects of non-essential amino acid synthesis by cells during cell culture and effectively promote cell proliferation and metabolism.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, and does not contain protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by $0.1 \,\mu$ m filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose and non-essential amino acids, 2.0 mM L-Alanyl-L-Glutamine, phenol red indicator, 25mM HEPES buffer system, no sodium pyruvate.

HEPES is a commonly used biological buffering agent, which can keep the medium at a constant pH range for a long time and effectively prevent the adverse effects of large pH fluctuations on cell growth.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concentration		Components	Concentration		
	mg/L	mM		mg/L	mM	
Amino acids			Inorganic salts			
L-Arginine hydrochloride	126.0	0.5972	Calcium Chloride (CaCl₂) (anhyd.)	200	1.802	
L-Cystine 2HCl	31.0	0.09904	Magnesium Sulfate (MgSO4) (anhyd.)	200	0.813	
L-Alanyl-L-Glutamine	217.22	2.0	Potassium Chloride (KCI)	400	5.333	
L-Histidine hydrochloride-H2O	42.0	0.2	Sodium Bicarbonate (NaHCO ₃)	2200	26.19	
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6800	117.2	
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic (NaH $_2$ PO $_4$) (anhyd.)	122	1.014	
L-Lysine hydrochloride	73.0	0.3989	Other components			
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556	
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657	
L-Threonine	48.0	0.4034	HEPES	5958	25.03	
L-Tryptophan	10.0	0.04902				
L-Tyrosine disodium salt dihydrate	52.0	0.1992				
L-Valine	46.0	0.3932				
Glycine	8.0	0.1067				
L-Alanine	9.0	0.1011				
L-Asparagine monohydrate	14.8	0.09848				
L-Asparagic acid	13.0	0.09774				
L-Aminoglutaric acid	15.0	0.1020				
L-Proline	12.0	0.1043				
L-Serine	11.0	0.1048				
Vitamins						
Choline chloride	1.0	0.00714 3				
D-Calcium pantothenate	1.0	0.00209 6				
Folic Acid	1.0	0.00226 8				
Niacinamide	1.0	0.00819 7				
Pyridoxine hydrochloride	1.0	0.00490 2				
Riboflavin	0.1	0.00026 6				
Thiamine hydrochloride	1.0	0.00296 7				
i-Inositol	2.0	0.01111				

G4551 MEM, with NEAA, HEPES



Servicebio® MEM, GlutaPlus, HEPES

Cat. No.: G4552-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, GlutaPlus, HEPES	G4552-500ML	500 mL

Product Description

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 2.0 mM L-AlanyI-L-Glutamine, phenol red indicator and 25 mM HEPES, without sodium pyruvate and NEAA. HEPES is an excellent biological buffer with no toxic effect on cells, and the medium with HEPES can maintain a constant pH range for a longer period of time.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concentration		Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine	126.0	0.5972	Calcium Chloride	200	1.802
hydrochloride			(CaCl₂)(anhyd.)		
L-Cystine	31.0	0.09904	Magnesium Sulfate	200	0.813
dihydrochloride			heptahydrate (MgSO ₄ ·7H ₂ O)		
L-Alanyl-L-Glutamine	434.4	2.0	Potassium Chloride (KCl)	400	5.333
L-Histidine HCI H_2O	42.0	0.20	Sodium Bicarbonate (NaHCO ₃)	2200	26.19
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6350	109.5
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic	122	1.014
			(NaH ₂ PO ₄) (anhyd.)		
L-Lysine	73.0	0.3989	Other components		
hydrochloride					
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657
L-Threonine	48.0	0.4034	HEPES	5958	25.03
L-Tryptophan	10.0	0.04902			
L-Tyrosine Disodium	52.0	0.1992			
Salt Dihydrate					
L-Valine	46.0	0.3932			
Glycine	-	-			
L-Alanine	-	-			
L-Asparagine	-	-			
monohydrate					
L-Aspartic Acid	-	-			
L-Glutamic Acid	-	-			
L-Proline	-	-			
L-Serine	-	-			
Vitamins					
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			
hydrochloride					
Riboflavin	0.10	0.0002660			
Thiamine	1.0	0.002967			
hydrochloride					

G4552 MEM Formula



Servicebio[®] MEM, no L-Glutamine, no HEPES

Cat. #: G4553-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, no L-Glutamine, no HEPES	G4553-500ML	500 mL

Product Description/Introduction

MEM (Minimum Essential Medium) is one of the most commonly used basal medium for supporting the growth of many suspension and adherent mammalian cells. MEM medium is a more nutrient rich version of basal medium eagle (BME) media. There are some other modifications of MEM followed, including with or without non-essential amino acids (including L-Alanine, L-Glutamic acid, L-Asparagine, L-Aspartic acid, L-Proline, L-Serine, and Glycine), addition of ribonucleosides and deoxyribonucleosides. MEM is available with Earle's salts for use in a CO₂ incubator or with Hank's salts for use without CO₂. This product is made with Earle's salts, no addition of non-essential amino acids and ribonucleosides and deoxyribonucleosides. MEM contains no proteins, lipids, or growth factors. Therefore, MEM requires supplementation, commonly with 10% Fetal Bovine Serum (FBS). MEM with Earle's salts uses a sodium bicarbonate buffer system (2.2 g/L), and therefore requires a 5–10% CO₂ environment to maintain physiological pH. MEM with Hanks' salts does

not require a CO2 environment to maintain physiological pH.

All raw material components used for Servicebio cell culture media products are screened through using strict quality control testing. Servicebio cell culture media are manufactured at a cGMP-compliant facility using water for injection, filtered through final 0.1 µm sterile filtration and aseptic filled in a Hundred-stage FFU. The filter integrity tests are performed before and after filtration. Each lot of cell culture media are subjected to sterility test, pH, osmolality, endotoxin and cell culture test.

The major character of this MEM is as follows:

- With 5.5 mM Glucose, phenol red
- Without non-essential amino acid (NEAA), L-glutamine, sodium pyruvate, HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store at 2℃ to 8℃, protect from light; Valid for 12 months.

- 1. This product is filtered by 0.1µm to remove bacteria. Please pay attention to aseptic operation to avoid contamination.
- 2. For best results, do not repeat freeze-thaw cycles.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Servicebio® α -MEM, nucleosides, GlutaPlus

Cat. No.: G4554-500ML

Product Information

Product Name	Cat. No.	Spec.
α -MEM, nucleosides, GlutaPlus	G4554-500ML	500 mL

Product Description/Introduction

 α -MEM (α Minimum Essential Medium) is a modified medium from MEM. Compared with MEM , α -MEM has added sodium pyruvate, zinc sulfate, vitamin B12, biotin, ascorbic acid and other components, and is widely used for the culture of various mammalian suspension and adherent cells. α -MEM is divided into the types of nucleoside-containing and non-nucleoside-containing. The nucleoside-free and deoxynucleoside -free α -MEM is commonly used as a screening medium for DG44 and other DHFR-deficient cells.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains L-Alanyl-L-Glutamine, sodium pyruvate, phenol red indicator, nucleoside and deoxynucleoside, without HEPES. Please check the official website for the specific recipe.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.


Components	Conce	entration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	50.0	0.6667	Calcium Chloride	200	1.801802
			(CaCl₂)(anhyd.)		
L-Alanine	25.0	0.2809	Magnesium Sulfate (MgSO₄) (anhvd.)	97.67	0.813917
L-Arginine	105.0	0.4976	Potassium Chloride (KCl)	400	5.333
L-Asparagine-H O	50.0	0 3333	Sodium Bicarbonate (NaHCO)	2200	26.2
L-Aspartic Acid	30.0	0.2256	Sodium Chloride (NaCl)	6800	117.2
L-Cystine 2HCl	31.0	0.2200	Sodium Phosphate monobasic	121 7	1 014
	51.0	0.0000	(NaH_PO_) (anhvd)	121.1	1.014
L-Cysteine	100.0	0.5682	Other components		
hvdrochloride-H ₂ O	100.0	0.0002			
L-Glutamic Acid	75.0	0.5102	D-Glucose (Dextrose)	1000	5.6
L-AlanvI-L-Glutamine	434.4	2.0	Lipoic Acid	0.20	0.0009709
L-Histidine	42	0.20	Phenol Red	9.40	0.026567
hydrochloride-H ₂ O					
L-Isoleucine	52.4	0.40	Sodium pyruvate	110	1.0
L-Leucine	52.0	0.3969	Adenosine	10.00	0.375
L-Lysine	73.0	0.3989	Cytidine	10.00	0.0412
hydrochloride					
L-Methionine	15.0	0.1007	Guanosine	10.00	0.0353
L-Phenylalanine	32.0	0.1939	Uridine	10.00	0.0410
L-Proline	40.0	0.3478	2'Deoxyadenosine	10.72	0.0398
L-Serine	25.0	0.2381	2'Deoxycytidine HCl	9.46	0.0417
L-Threonine	48.0	0.4034	2'Deoxyguanosine	10.68	0.0375
L-Tryptophan	10.0	0.0490	Thymidine	10.00	0.0413
L-Tyrosine Disodium	52.0	0.2311			
Salt					
L-Valine	46.0	0.3932			
Vitamins					
Ascorbic Acid	50.0	0.2841			
Biotin	0.10	0.000410			
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			

hydrochloride

G4554 α-MEM Formula



Riboflavin	0.10	0.000266
Thiamine	1.0	0.002967
hydrochloride		
Vitamin B12	1.36	0.001004
i-Inositol	2.0	0.011111



Servicebio® α-MEM, GlutaPlus, no nucleosides

Cat. No.: G4555-500ML

Product Information

Product Name	Cat. No.	Spec.
α -MEM, GlutaPlus, no nucleosides	G4555-500ML	500 mL

Product Description/Introduction

 α -MEM (α Minimum Essential Medium) is a modified medium from MEM. Compared with MEM , α -MEM has added sodium pyruvate, zinc sulfate, vitamin B12, biotin, ascorbic acid and other components, and is widely used for the culture of various mammalian suspension and adherent cells. α -MEM is divided into the types of nucleoside-containing and non-nucleoside-containing. The nucleoside-free and deoxynucleoside-free α -MEM is commonly used as a screening medium for DG44 and other DHFR-deficient cells.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains L-Alanyl-L-Glutamine, sodium pyruvate, phenol red indicator, without HEPES and nucleosides. Please check the official website for the specific recipe.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Components	Conce	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	50.0	0.6667	Calcium Chloride	200	1.801802
			(CaCl₂)(anhyd.)		
L-Alanine	25.0	0.2809	Magnesium Sulfate (MgSO ₄)	97.67	0.813917
			(anhyd.)		
L-Arginine	105.0	0.4976	Potassium Chloride (KCl)	400	5.333
hydrochloride					
$L-Asparagine-H_2O$	50.0	0.3333	Sodium Bicarbonate (NaHCO ₃)	2200	26.2
L-Aspartic Acid	30.0	0.2256	Sodium Chloride (NaCl)	6800	117.2
L-Cystine 2HCl	31.0	0.0990	Sodium Phosphate monobasic	121.7	1.014
			(NaH ₂ PO ₄) (anhyd.)		
L-Cysteine	100.0	0.5682	Other components		
$hydrochloride-H_2O$					
L-Glutamic Acid	75.0	0.5102	D-Glucose (Dextrose)	1000	5.6
L-Alanyl-L-Glutamine	434.4	2.0	Lipoic Acid	0.20	0.0009709
L-Histidine	42	0.20	Phenol Red	9.40	0.026567
$hydrochloride-H_2O$					
L-Isoleucine	52.4	0.40	Sodium pyruvate	110	1.0
L-Leucine	52.0	0.3969			
L-Lysine	73.0	0.3989			
hydrochloride					
L-Methionine	15.0	0.1007			
L-Phenylalanine	32.0	0.1939			
L-Proline	40.0	0.3478			
L-Serine	25.0	0.2381			
L-Threonine	48.0	0.4034			
L-Tryptophan	10.0	0.0490			
L-Tyrosine Disodium	52.0	0.2311			
Salt					
L-Valine	46.0	0.3932			
Vitamins					
Ascorbic Acid	50.0	0.2841			
Biotin	0.10	0.000410			
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			
hydrochloride					

G4555 α-MEM Formula



Riboflavin	0.10	0.000266
Thiamine	1.0	0.002967
hydrochloride		
Vitamin B12	1.36	0.001004
i-Inositol	2.0	0.011111



Servicebio[®] MEM, NEAA, GlutaPlus, no HEPES

Cat. #: G4556-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, NEAA, GlutaPlus, no HEPES	G4556	500ML

Product Description

Minimum Essential Medium (MEM), which is also known as Low Limited Eagle Medium, is one of the most commonly used basic media in animal cell culture. MEM contains only 12 kinds of essential amino acids, 8 kinds of vitamins and basic inorganic salts, and has simple nutritional composition. It is mainly used for culture of adherent cells, and can also be used for culture of other types of cells culture with a modified formulation.

MEM containing NEAA (non-essential amino acids) is supplemented with seven kinds of NEAA, including L-alanine, L-glutamic acid, L-asparagine, L-aspartate, L-proline, L-serine and glycine, which can reduce the side effects of non-essential amino acid synthesis by cells during cell culture and effectively promote cell proliferation and metabolism.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, and does not contain protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 1.87 mM L-alanyl-L-glutamine, phenol red indicator, no HEPES buffer system and sodium pyruvate.

L-alanyl-L-glutamine, is a cell culture additive that replaces medium moles of L-glutamine in cell culture media. The substance is stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Storage and Shipping Conditions

Ship at room temperature, store at 2-8°C away from light, valid for 12 months.

- 1. The product is filtered and sterilized, and attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw.



Servicebio® MEM, GlutaPlus, no HEPES

Cat. No.: G4557-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, GlutaPlus, no HEPES	G4557-500ML	500 mL

Product Description

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 2.0 mM L-Alanyl-L-Glutamine and phenol red indicator, without sodium pyruvate, NEAA and HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	entration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine	126.0	0.5972	Calcium Chloride	200	1.802
hydrochloride			(CaCl₂)(anhyd.)		
L-Cystine 2HCl	31.0	0.09904	Magnesium Sulfate	200	0.813
			heptahydrate (MgSO ₄ ·7H ₂ O)		
L-Alanyl-L-Glutamine	434.4	2.0	Potassium Chloride (KCI)	400	5.333
L-Histidine	42.0	0.20	Sodium Bicarbonate (NaHCO ₃)	2200	26.19
hydrochloride- H_2O					
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6350	109.5
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic	122	1.014
			(NaH ₂ PO ₄) (anhyd.)		
L-Lysine	73.0	0.3989	Other components		
hydrochloride					
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657
L-Threonine	48.0	0.4034	HEPES	-	-
L-Tryptophan	10.0	0.04902			
L-Tyrosine Disodium	52.0	0.1992			
Salt Dihydrate					
L-Valine	46.0	0.3932			
Glycine	-	-			
L-Alanine	-	-			
L-Asparagine	-	-			
monohydrate					
L-Aspartic Acid	-	-			
L-Glutamic Acid	-	-			
L-Proline	-	-			
L-Serine	-	-			
Vitamins					
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			
hydrochloride					
Riboflavin	0.10	0.0002660			
Thiamine	1.0	0.002967			

2.0

Meso-Inositol

0.01111





Servicebio® Glasgow's MEM (GMEM)

Cat. No.: G4558-500ML

Product Information

Product Name	Cat. No.	Spec.
Glasgow's MEM (GMEM)	G4558-500ML	500 mL

Product Description

Glasgow's MEM (GMEM), originally developed by Ian McPherson and Michael Stoker for use with renal cell lines such as BGK-21, is a modified form of Eagle's minimum essential medium. It is used to study the genetic factors that influence the ability of cells. This product, Glasgow's MEM, contains amino acids and vitamins at twice the concentration of the original base Eagle medium and contains no proteins, lipids or growth factors. Therefore, before use, add a supplement of 10% tryptonophosphate broth as needed. Glasgow MEM uses a sodium bicarbonate buffer system (2.75g/L) and therefore requires a 5-10% CO2 environment to maintain physiological pH.

This product is filtered and sterilized by 0.1 µm membrane, pH 6.7-7.1, containing 25 mM D-glucose, with 2.0 mM L-alanyl-L-glutamine added, no phenol red indicator, no sodium pyruvate, no HEPES buffer system, and no tryptone phosphate broth.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, ,do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



G4558 Glasgow's	MEM	(GMEM)
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Components Concentratio		ntration	Components	Conce	ntration
	mg/L	mM		mg/L	mМ
Amino acids			Inorganic salts		
L-Arginine hydrochloride	42	0.1990	Calcium Chloride (CaCl₂) (anhyd.)	200	1.8018
L-Cystine 2HCl	31	0.0990	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	2.48E-0 4
L-Glutamine	292	2	Magnesium Sulfate (MgSO₄) (anhyd.)	97.67	0.8139
L-Histidine hydrochloride- H_2O	21	0.1	Potassium Chloride (KCl)	400	5.333
L-Isoleucine	52	0.3969	Sodium Bicarbonate (NaHCO ₃)	2750	32.738
L-Leucine	52	0.3969	Sodium Chloride (NaCl)	6400	110.34
L-Lysine hydrochloride	73	0.3989	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108	0.8985
L-Methionine	15	0.1006	Other components		
L-Phenylalanine	33	0.2	D-Glucose (Dextrose)	4500	25
L-Threonine	47.6	0.3999	Phenol Red	15	0.039
L-Tryptophan	8	0.0392			
L-Tyrosine disodium salt	52	0.1992			
dihydrate dihydrate					
L-Valine	46.8	0.4			
Vitamins					
Choline chloride	2.0	0.0142			
D-Calcium pantothenate	2.0	0.0041			
Folic Acid	2.0	0.0045			
Niacinamide	2.0	0.0163			
Pyridoxine hydrochloride	2.0	0.0098			
Riboflavin	0.2	5.32E-0			
		4			
Thiamine hydrochloride	2.0	0.0059			
Meso-Inositol	3.6	0.02			



Servicebio $\ensuremath{\mathbb{R}}$ α -MEM, nucleosides, GlutaPlus, no phenol red

Cat. No.: G4559-500ML

Product Information

Product Name	Cat. No.	Spec.
α -MEM, nucleosides, GlutaPlus, no phenol red	G4559-500ML	500 mL

Product Description/Introduction

 α -MEM (α Minimum Essential Medium) is a modified medium from MEM. Compared with MEM , α -MEM has added sodium pyruvate, zinc sulfate, vitamin B12, biotin, ascorbic acid and other components, and is widely used for the culture of various mammalian suspension and adherent cells. α -MEM is divided into the types of nucleoside-containing and non-nucleoside-containing. The nucleoside-free and deoxynucleoside -free α -MEM is commonly used as a screening medium for DG44 and other DHFR-deficient cells.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains L-Alanyl-L-Glutamine, sodium pyruvate, nucleoside and deoxynucleoside, without phenol red, without HEPES. Please check the official website for the specific recipe.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Components	Conce	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	50.0	0.6667	Calcium Chloride	200	1.801802
			(CaCl₂)(anhyd.)		
L-Alanine	25.0	0.2809	Magnesium Sulfate (MgSO ₄)	97.67	0.813917
			(anhyd.)		
L-Arginine	105.0	0.4976	Potassium Chloride (KCl)	400	5.333
hydrochloride					
$L-Asparagine-H_2O$	50.0	0.3333	Sodium Bicarbonate (NaHCO ₃)	2200	26.2
L-Aspartic Acid	30.0	0.2256	Sodium Chloride (NaCl)	6800	117.2
L-Cystine 2HCI	31.0	0.0990	Sodium Phosphate monobasic	121.7	1.014
			(NaH ₂ PO ₄) (anhyd.)		
L-Cysteine	100.0	0.5682	Other components		
hydrochloride- H_2O					
L-Glutamic Acid	75.0	0.5102	D-Glucose (Dextrose)	1000	5.6
L-Alanyl-L-Glutamine	434.4	2.0	Lipoic Acid	0.20	0.0009709
L-Histidine	42	0.20	Sodium pyruvate	110	1.0
hydrochloride- H_2O					
L-Isoleucine	52.4	0.40	Adenosine	10.00	0.375
L-Leucine	52.0	0.3969	Cytidine	10.00	0.0412
L-Lysine	73.0	0.3989	Guanosine	10.00	0.0353
hydrochloride					
L-Methionine	15.0	0.1007	Uridine	10.00	0.0410
L-Phenylalanine	32.0	0.1939	2'Deoxyadenosine	10.72	0.0398
L-Proline	40.0	0.3478	2'Deoxycytidine HCl	9.46	0.0417
L-Serine	25.0	0.2381	2'Deoxyguanosine	10.68	0.0375
L-Threonine	48.0	0.4034	Thymidine	10.00	0.0413
L-Tryptophan	10.0	0.0490			
L-Tyrosine Disodium	52.0	0.2311			
Salt					
L-Valine	46.0	0.3932			
Vitamins					
Ascorbic Acid	50.0	0.2841			
Biotin	0.10	0.000410			
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197		0.4.0	0.000
Pyridoxine	1.0	0.004902	Riboflavin	0.10	0.000
hydrochloride			Thiamine	1.0	0.002

G4554 α-MEM Formula

Riboflavin	0.10	0.000266
Thiamine	1.0	0.002967
hydrochloride		
Vitamin B12	1.36	0.001004
i-Inositol	2.0	0.011111



Servicebio® Eagle's MEM (EMEM)

Cat. No.: G4650

Product Information

Product Name	Cat. No.	Spec.
Eagle's MEM (EMEM)	G4650-500ML	500 mL

Product Description

Eagle'sMEM (EMEM) medium, Eagle's minimumessentialMedium, also known as minimum essential medium, minimum basic medium or low limit Eagle medium, is developed on the basis of Eagle basic medium (BEM). It is one of the most basic and widely used animal cell medium, hereinafter referred to as EMEM. EMEM medium contains only 12 essential amino acids, glutamine and 8 vitamins, the composition is simple, mainly used for the culture of adherent cells, and can also be used for other types of cell culture after modification.

This product can be used to culture a variety of monolingual mammalian cells, such as cultured cell lines such as HeLa, BHK-21, 293, HEP-2, HT-1080, MCF-7, fibroblasts and primary rat astrocytes. It can also be used to select negative cells transfected with DHFR.

EMEM medium added seven non-essential amino acids (NEAA) including L-alanine, L-glutamic acid, L-asparagine, L-aspartate, L-proline, L-serine and glycine on the basis of MEM medium, which could reduce the side effects of cell production of non-essential amino acids during cell culture and effectively promote cell proliferation and metabolism.

In addition, on the basis of conventional EMEM medium, the content of sodium bicarbonate was reduced and sodium pyruvate was added. This product contains amino acids, vitamins, inorganic salts and other components required for cell culture, and does not contain protein or growth factors. It needs to be used with 5-10% serum or no serum additives according to cell type.

This product is filtered by 0.1µm filter membrane, pH7.0-7.4, adding 2.0 mL-alanyl-L-glutamine, 1.0mM sodium pyruvate, containing 1.5g/L sodium bicarbonate, containing phenol red indicator, without HEPES buffer system.

L-alanyl-l-glutamine is a cell culture additive that can replace medium molar L-glutamine in cell medium. The substance is very stable in aqueous solution and does not degrade spontaneously, but is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, ,do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	ntration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Vitamins		
L-Arginine	125.8	0.5972	Choline chloride	1.0	0.0071
					43
L-Cystine 2HCl	31.2	0.09968	D-Calcium pantothenate	1.0	0.0020
					96
L-Alanyl-L-Glutamine	434.4	2.0	Folic Acid	1.0	0.0022
					68
L-Histidine hydrochloride- H_2O	41.0	0.1995	Niacinamide	1.0	0.0081
					97
L-Isoleucine	52.5	0.3969	Pyridoxine hydrochloride	1.0	0.0049
					02
L-Leucine	52.5	0.3969	Riboflavin	0.10	0.0002
					660
L-Lysine hydrochloride	72.5	0.3961	Thiamine hydrochloride	1.0	0.0029
					67
L-Methionine	15.0	0.1007	Meso-Inositol	2.0	0.0111
					1
L-Phenylalanine	32.5	0.1970	Inorganic salts		
L-Threonine	47.8	0.4017	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.8018
L-Tryptophan	10.0	0.04902	Magnesium Sulfate (MgSO₄) (anhyd.)	97.67	0.8139
L-Tyrosine disodium salt	51.0	0.1988	Potassium Chloride (KCl)	400	5.333
dihydrate dihydrate					
L-Valine	46.8	0.4	Sodium Bicarbonate (NaHCO ₃)	1500	17.857
Glycine	7.5	0.1	Sodium Chloride (NaCl)	6800	117.24
L-Alanine	8.9	0.1	Sodium Phosphate monobasic (NaH ₂ PO ₄) (anhyd.)	122	1.0144
L-Asparagine	15.0	0.1136	Other components		
L-Aspartic Acid	13.3	0.1	D-Glucose (Dextrose)	1000	5.5556
L-Glutamic Acid	14.7	0.1	Phenol Red	9.4	0.0265
					7
L-Proline	11.5	0.1	Sodium pyruvate	110	1.0
L-Serine	10.5	0.1		_	

G4650 Eagle's MEM (EMEM)



Servicebio® MEM, NEAA, no L-Glutamine, no HEPES

Cat. No.: G4550-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, NEAA, no L-Glutamine, no HEPES	G4550-500ML	500 mL

Product Description/Introduction

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

MEM which contains NEAA (non-essential amino acids) is based on MEM with the addition of 7 NEAA, including L-Alanine, L-Glutamic acid, L-Asparagine, L-Aspartic acid, L-Proline, L-Serine and Glycine, to reduce the side effects of cells' own synthesis of non-essential amino acids during cell culture and effectively promote cell proliferation and metabolism.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, phenol red indicator, without L-glutamine, sodium pyruvate and HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	entration	Components	Concentration		
	mg/L	mM		mg/L	mМ	
Amino acids			Inorganic salts			
L-Arginine	126.0	0.5972	Calcium Chloride	200	1.802	
hydrochloride			(CaCl₂)(anhyd.)			
L-Cystine	31.0	0.09904	Magnesium Sulfate	200	0.813	
dihydrochloride			heptahydrate (MgSO ₄ :7H ₂ O)			
L-Glutamine	-	-	Potassium Chloride (KCl)	400	5.333	
L-Histidine HCl H_2O	42.0	0.20	Sodium Bicarbonate (NaHCO ₃)	2200	26.19	
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6800	117.2	
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic	122	1.014	
			(NaH ₂ PO ₄) (anhyd.)			
L-Lysine	73.0	0.3989	Other components			
hydrochloride						
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556	
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657	
L-Threonine	48.0	0.4034	HEPES	-	-	
L-Tryptophan	10.0	0.04902				
L-Tyrosine Disodium	52.0	0.1992				
Salt Dihydrate						
L-Valine	46.0	0.3932				
Glycine	8.0	0.1067				
L-Alanine	9.0	0.1011				
L-Asparagine	14.8	0.09848				
monohydrate						
L-Aspartic Acid	13.0	0.09774				
L-Glutamic Acid	15.0	0.1020				
L-Proline	12.0	0.1043				
L-Serine	11.0	0.1048				
Vitamins						
Choline chloride	1.0	0.007143				
D-Calcium	1.0	0.002096				
pantothenate						
Folic Acid	1.0	0.002268				
Niacinamide	1.0	0.008197				
Pyridoxine	1.0	0.004902				
hydrochloride						
Riboflavin	0.10	0.0002660				
Thiamine	1.0	0.002967				
hydrochloride						
i-Inositol	2.0	0.01111				

G4550 MEM Formula



Servicebio® MEM, NEAA, GlutaPlus, HEPES

Cat. No.: G4551-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, NEAA, GlutaPlus, HEPES	G4551-500ML	500 mL

Product Description

Minimum Essential Medium (MEM), which is also known as Low Limited Eagle Medium, is one of the most commonly used basic media in animal cell culture. MEM contains only 12 kinds of essential amino acids, 8 kinds of vitamins and basic inorganic salts, and has simple nutritional composition. It is mainly used for culture of adherent cells, and can also be used for culture of other types of cells culture with a modified formulation.

MEM containing NEAA (non-essential amino acids) is supplemented with seven kinds of NEAA, including L-alanine, L-glutamic acid, L-asparagine, L-aspartate, L-proline, L-serine and glycine, which can reduce the side effects of non-essential amino acid synthesis by cells during cell culture and effectively promote cell proliferation and metabolism.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, and does not contain protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by $0.1 \,\mu$ m filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose and non-essential amino acids, 2.0 mM L-Alanyl-L-Glutamine, phenol red indicator, 25mM HEPES buffer system, no sodium pyruvate.

HEPES is a commonly used biological buffering agent, which can keep the medium at a constant pH range for a long time and effectively prevent the adverse effects of large pH fluctuations on cell growth.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Components	Conc	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine hydrochloride	126.0	0.5972	Calcium Chloride (CaCl₂) (anhyd.)	200	1.802
L-Cystine 2HCl	31.0	0.09904	Magnesium Sulfate (MgSO4) (anhyd.)	200	0.813
L-Alanyl-L-Glutamine	217.22	2.0	Potassium Chloride (KCI)	400	5.333
L-Histidine hydrochloride-H2O	42.0	0.2	Sodium Bicarbonate (NaHCO ₃)	2200	26.19
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6800	117.2
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic (NaH $_2$ PO $_4$) (anhyd.)	122	1.014
L-Lysine hydrochloride	73.0	0.3989	Other components		
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657
L-Threonine	48.0	0.4034	HEPES	5958	25.03
L-Tryptophan	10.0	0.04902			
L-Tyrosine disodium salt dihydrate	52.0	0.1992			
L-Valine	46.0	0.3932			
Glycine	8.0	0.1067			
L-Alanine	9.0	0.1011			
L-Asparagine monohydrate	14.8	0.09848			
L-Asparagic acid	13.0	0.09774			
L-Aminoglutaric acid	15.0	0.1020			
L-Proline	12.0	0.1043			
L-Serine	11.0	0.1048			
Vitamins					
Choline chloride	1.0	0.00714 3			
D-Calcium pantothenate	1.0	0.00209 6			
Folic Acid	1.0	0.00226 8			
Niacinamide	1.0	0.00819 7			
Pyridoxine hydrochloride	1.0	0.00490 2			
Riboflavin	0.1	0.00026 6			
Thiamine hydrochloride	1.0	0.00296 7			
i-Inositol	2.0	0.01111			

G4551 MEM, with NEAA, HEPES



Servicebio® MEM, GlutaPlus, HEPES

Cat. No.: G4552-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, GlutaPlus, HEPES	G4552-500ML	500 mL

Product Description

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 2.0 mM L-AlanyI-L-Glutamine, phenol red indicator and 25 mM HEPES, without sodium pyruvate and NEAA. HEPES is an excellent biological buffer with no toxic effect on cells, and the medium with HEPES can maintain a constant pH range for a longer period of time.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	oonents Concentration Components		Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine	126.0	0.5972	Calcium Chloride	200	1.802
hydrochloride			(CaCl ₂)(anhyd.)		
L-Cystine	31.0	0.09904	Magnesium Sulfate	200	0.813
dihydrochloride			heptahydrate (MgSO ₄ ·7H ₂ O)		
L-Alanyl-L-Glutamine	434.4	2.0	Potassium Chloride (KCl)	400	5.333
L-Histidine HCl H_2O	42.0	0.20	Sodium Bicarbonate (NaHCO ₃)	2200	26.19
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6350	109.5
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic (NaH₂PO₄) (anhyd.)	122	1.014
L-Lysine	73.0	0.3989	Other components		
hydrochloride					
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657
L-Threonine	48.0	0.4034	HEPES	5958	25.03
L-Tryptophan	10.0	0.04902			
L-Tyrosine Disodium	52.0	0.1992			
Salt Dihydrate					
L-Valine	46.0	0.3932			
Glycine	-	-			
L-Alanine	-	-			
L-Asparagine	-	-			
monohydrate					
L-Aspartic Acid	-	-			
L-Glutamic Acid	-	-			
L-Proline	-	-			
L-Serine	-	-			
Vitamins					
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			
hydrochloride					
Riboflavin	0.10	0.0002660			
Thiamine	1.0	0.002967			
hydrochloride					
i-Inositol	2.0	0.01111			

G4552 MEM Formula



Servicebio[®] MEM, no L-Glutamine, no HEPES

Cat. #: G4553-500ML

Product Information

Product Name	Cat. No.	Spec.	
MEM, no L-Glutamine, no HEPES	G4553-500ML	500 mL	

Product Description/Introduction

MEM (Minimum Essential Medium) is one of the most commonly used basal medium for supporting the growth of many suspension and adherent mammalian cells. MEM medium is a more nutrient rich version of basal medium eagle (BME) media. There are some other modifications of MEM followed, including with or without non-essential amino acids (including L-Alanine, L-Glutamic acid, L-Asparagine, L-Aspartic acid, L-Proline, L-Serine, and Glycine), addition of ribonucleosides and deoxyribonucleosides. MEM is available with Earle's salts for use in a CO₂ incubator or with Hank's salts for use without CO₂. This product is made with Earle's salts, no addition of non-essential amino acids and ribonucleosides and deoxyribonucleosides. MEM contains no proteins, lipids, or growth factors. Therefore, MEM requires supplementation, commonly with 10% Fetal Bovine Serum (FBS). MEM with Earle's salts uses a sodium bicarbonate buffer system (2.2 g/L), and therefore requires a 5–10% CO₂ environment to maintain physiological pH. MEM with Hanks' salts does

not require a CO2 environment to maintain physiological pH.

All raw material components used for Servicebio cell culture media products are screened through using strict quality control testing. Servicebio cell culture media are manufactured at a cGMP-compliant facility using water for injection, filtered through final 0.1 µm sterile filtration and aseptic filled in a Hundred-stage FFU. The filter integrity tests are performed before and after filtration. Each lot of cell culture media are subjected to sterility test, pH, osmolality, endotoxin and cell culture test.

The major character of this MEM is as follows:

- With 5.5 mM Glucose, phenol red
- Without non-essential amino acid (NEAA), L-glutamine, sodium pyruvate, HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store at 2℃ to 8℃, protect from light; Valid for 12 months.

- 1. This product is filtered by 0.1µm to remove bacteria. Please pay attention to aseptic operation to avoid contamination.
- 2. For best results, do not repeat freeze-thaw cycles.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Servicebio® α -MEM, nucleosides, GlutaPlus

Cat. No.: G4554-500ML

Product Information

Product Name	Cat. No.	Spec.
α -MEM, nucleosides, GlutaPlus	G4554-500ML	500 mL

Product Description/Introduction

 α -MEM (α Minimum Essential Medium) is a modified medium from MEM. Compared with MEM , α -MEM has added sodium pyruvate, zinc sulfate, vitamin B12, biotin, ascorbic acid and other components, and is widely used for the culture of various mammalian suspension and adherent cells. α -MEM is divided into the types of nucleoside-containing and non-nucleoside-containing. The nucleoside-free and deoxynucleoside -free α -MEM is commonly used as a screening medium for DG44 and other DHFR-deficient cells.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains L-Alanyl-L-Glutamine, sodium pyruvate, phenol red indicator, nucleoside and deoxynucleoside, without HEPES. Please check the official website for the specific recipe.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



2.0

0.011111

i-Inositol

Components	Conce	entration	Components	Conce	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	50.0	0.6667	Calcium Chloride	200	1.801802
			(CaCl₂)(anhyd.)		
L-Alanine	25.0	0.2809	Magnesium Sulfate (MgSO ₄)	97.67	0.813917
			(anhyd.)		
L-Arginine	105.0	0.4976	Potassium Chloride (KCl)	400	5.333
hydrochloride					
$L-Asparagine-H_2O$	50.0	0.3333	Sodium Bicarbonate (NaHCO ₃)	2200	26.2
L-Aspartic Acid	30.0	0.2256	Sodium Chloride (NaCl)	6800	117.2
L-Cystine 2HCl	31.0	0.0990	Sodium Phosphate monobasic	121.7	1.014
			(NaH ₂ PO ₄) (anhyd.)		
L-Cysteine	100.0	0.5682	Other components		
hydrochloride - H_2O					
L-Glutamic Acid	75.0	0.5102	D-Glucose (Dextrose)	1000	5.6
L-Alanyl-L-Glutamine	434.4	2.0	Lipoic Acid	0.20	0.0009709
L-Histidine	42	0.20	Phenol Red	9.40	0.026567
hydrochloride- H_2O					
L-Isoleucine	52.4	0.40	Sodium pyruvate	110	1.0
L-Leucine	52.0	0.3969	Adenosine	10.00	0.375
L-Lysine	73.0	0.3989	Cytidine	10.00	0.0412
hydrochloride					
L-Methionine	15.0	0.1007	Guanosine	10.00	0.0353
L-Phenylalanine	32.0	0.1939	Uridine	10.00	0.0410
L-Proline	40.0	0.3478	2'Deoxyadenosine	10.72	0.0398
L-Serine	25.0	0.2381	2'Deoxycytidine HCl	9.46	0.0417
L-Threonine	48.0	0.4034	2'Deoxyguanosine	10.68	0.0375
L-Tryptophan	10.0	0.0490	Thymidine	10.00	0.0413
L-Tyrosine Disodium	52.0	0.2311			
Salt					
L-Valine	46.0	0.3932			
Vitamins					
Ascorbic Acid	50.0	0.2841			
Biotin	0.10	0.000410			
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268	Riboflavin	0.10	0.000266
Niacinamide	1.0	0.008197	Thiamine	1.0	0.002967
Pyridoxine	1.0	0.004902	hydrochloride		
hydrochloride			Vitamin B12	1.36	0.001004

G4554 α-MEM Formula



Servicebio® α-MEM, GlutaPlus, no nucleosides

Cat. No.: G4555-500ML

Product Information

Product Name	Cat. No.	Spec.
α -MEM, GlutaPlus, no nucleosides	G4555-500ML	500 mL

Product Description/Introduction

 α -MEM (α Minimum Essential Medium) is a modified medium from MEM. Compared with MEM , α -MEM has added sodium pyruvate, zinc sulfate, vitamin B12, biotin, ascorbic acid and other components, and is widely used for the culture of various mammalian suspension and adherent cells. α -MEM is divided into the types of nucleoside-containing and non-nucleoside-containing. The nucleoside-free and deoxynucleoside-free α -MEM is commonly used as a screening medium for DG44 and other DHFR-deficient cells.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains L-Alanyl-L-Glutamine, sodium pyruvate, phenol red indicator, without HEPES and nucleosides. Please check the official website for the specific recipe.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Components	Conce	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	50.0	0.6667	Calcium Chloride	200	1.801802
			(CaCl₂)(anhyd.)		
L-Alanine	25.0	0.2809	Magnesium Sulfate (MgSO ₄)	97.67	0.813917
			(anhyd.)		
L-Arginine	105.0	0.4976	Potassium Chloride (KCl)	400	5.333
hydrochloride					
$L-Asparagine-H_2O$	50.0	0.3333	Sodium Bicarbonate (NaHCO ₃)	2200	26.2
L-Aspartic Acid	30.0	0.2256	Sodium Chloride (NaCl)	6800	117.2
L-Cystine 2HCl	31.0	0.0990	Sodium Phosphate monobasic	121.7	1.014
			(NaH ₂ PO ₄) (anhyd.)		
L-Cysteine	100.0	0.5682	Other components		
hydrochloride- H_2O					
L-Glutamic Acid	75.0	0.5102	D-Glucose (Dextrose)	1000	5.6
L-Alanyl-L-Glutamine	434.4	2.0	Lipoic Acid	0.20	0.0009709
L-Histidine	42	0.20	Phenol Red	9.40	0.026567
hydrochloride- H_2O					
L-Isoleucine	52.4	0.40	Sodium pyruvate	110	1.0
L-Leucine	52.0	0.3969			
L-Lysine	73.0	0.3989			
hydrochloride					
L-Methionine	15.0	0.1007			
L-Phenylalanine	32.0	0.1939			
L-Proline	40.0	0.3478			
L-Serine	25.0	0.2381			
L-Threonine	48.0	0.4034			
L-Tryptophan	10.0	0.0490			
L-Tyrosine Disodium	52.0	0.2311			
Salt					
L-Valine	46.0	0.3932			
Vitamins					
Ascorbic Acid	50.0	0.2841			
Biotin	0.10	0.000410			
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268	Riboflavin	0.10	0.00026
Niacinamide	1.0	0.008197	Thiamine	1.0	0.00296
Pyridoxine	1.0	0.004902	hydrochloride		
hydrochloride			Vitamin B12	1.36	0.00100

G4555 α-MEM Formula

i-Inositol

2.0

0.011111



Servicebio[®] MEM, NEAA, GlutaPlus, no HEPES

Cat. #: G4556-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, NEAA, GlutaPlus, no HEPES	G4556	500ML

Product Description

Minimum Essential Medium (MEM), which is also known as Low Limited Eagle Medium, is one of the most commonly used basic media in animal cell culture. MEM contains only 12 kinds of essential amino acids, 8 kinds of vitamins and basic inorganic salts, and has simple nutritional composition. It is mainly used for culture of adherent cells, and can also be used for culture of other types of cells culture with a modified formulation.

MEM containing NEAA (non-essential amino acids) is supplemented with seven kinds of NEAA, including L-alanine, L-glutamic acid, L-asparagine, L-aspartate, L-proline, L-serine and glycine, which can reduce the side effects of non-essential amino acid synthesis by cells during cell culture and effectively promote cell proliferation and metabolism.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, and does not contain protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 1.87 mM L-alanyl-L-glutamine, phenol red indicator, no HEPES buffer system and sodium pyruvate.

L-alanyl-L-glutamine, is a cell culture additive that replaces medium moles of L-glutamine in cell culture media. The substance is stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Storage and Shipping Conditions

Ship at room temperature, store at 2-8°C away from light, valid for 12 months.

- 1. The product is filtered and sterilized, and attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw.



Servicebio® MEM, GlutaPlus, no HEPES

Cat. No.: G4557-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, GlutaPlus, no HEPES	G4557-500ML	500 mL

Product Description

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 2.0 mM L-Alanyl-L-Glutamine and phenol red indicator, without sodium pyruvate, NEAA and HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	entration	Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine	126.0	0.5972	Calcium Chloride	200	1.802
hydrochloride			(CaCl ₂)(anhyd.)		
L-Cystine 2HCl	31.0	0.09904	Magnesium Sulfate	200	0.813
			heptahydrate (MgSO ₄ ·7H ₂ O)		
L-Alanyl-L-Glutamine	434.4	2.0	Potassium Chloride (KCl)	400	5.333
L-Histidine	42.0	0.20	Sodium Bicarbonate (NaHCO ₃)	2200	26.19
hydrochloride- H_2O					
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6350	109.5
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic (NaH.PO.) (anhvd.)	122	1.014
L-Lysine hydrochloride	73.0	0.3989	Other components		
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657
L-Threonine	48.0	0.4034	HEPES	-	-
L-Tryptophan	10.0	0.04902			
L-Tyrosine Disodium	52.0	0.1992			
Salt Dihydrate					
L-Valine	46.0	0.3932			
Glycine	-	-			
L-Alanine	-	-			
L-Asparagine	-	-			
monohydrate					
L-Aspartic Acid	-	-			
L-Glutamic Acid	-	-			
L-Proline	-	-			
L-Serine	-	-			
Vitamins					
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			
hydrochloride					
Riboflavin	0.10	0.0002660			
Thiamine	1.0	0.002967			
hydrochloride					
Meso-Inositol	2.0	0.01111			



Servicebio® MEM, GlutaPlus, no HEPES

Cat. No.: G4557-500ML

Product Information

Product Name	Cat. No.	Spec.
MEM, GlutaPlus, no HEPES	G4557-500ML	500 mL

Product Description

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 2.0 mM L-Alanyl-L-Glutamine and phenol red indicator, without sodium pyruvate, NEAA and HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	entration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine	126.0	0.5972	Calcium Chloride	200	1.802
hydrochloride			(CaCl₂)(anhyd.)		
L-Cystine 2HCI	31.0	0.09904	Magnesium Sulfate	200	0.813
			heptahydrate (MgSO ₄ ·7H ₂ O)		
L-Alanyl-L-Glutamine	434.4	2.0	Potassium Chloride (KCl)	400	5.333
L-Histidine	42.0	0.20	Sodium Bicarbonate (NaHCO ₃)	2200	26.19
hydrochloride- H_2O					
L-Isoleucine	52.0	0.3969	Sodium Chloride (NaCl)	6350	109.5
L-Leucine	52.0	0.3969	Sodium Phosphate monobasic	122	1.014
	70.0	0.0000	(NaH_2PO_4) (annyo.)		
L-Lysine hydrochloride	73.0	0.3989	Other components		
L-Methionine	15.0	0.1007	D-Glucose (Dextrose)	1000	5.556
L-Phenylalanine	32.0	0.1939	Phenol Red	9.4	0.02657
L-Threonine	48.0	0.4034	HEPES	-	-
L-Tryptophan	10.0	0.04902			
L-Tyrosine Disodium	52.0	0.1992			
Salt Dihydrate					
L-Valine	46.0	0.3932			
Glycine	-	-			
L-Alanine	-	-			
L-Asparagine	-	-			
monohydrate					
L-Aspartic Acid	-	-			
L-Glutamic Acid	-	-			
L-Proline	-	-			
L-Serine	-	-			
Vitamins					
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197			
Pyridoxine	1.0	0.004902			
hydrochloride					
Riboflavin	0.10	0.0002660			
Thiamine	1.0	0.002967			
hydrochloride					

0.01111

Meso-Inositol

2.0



Servicebio® Glasgow's MEM (GMEM)

Cat. No.: G4558-500ML

Product Information

Product Name	Cat. No.	Spec.
Glasgow's MEM (GMEM)	G4558-500ML	500 mL

Product Description

Glasgow's MEM (GMEM), originally developed by Ian McPherson and Michael Stoker for use with renal cell lines such as BGK-21, is a modified form of Eagle's minimum essential medium. It is used to study the genetic factors that influence the ability of cells. This product, Glasgow's MEM, contains amino acids and vitamins at twice the concentration of the original base Eagle medium and contains no proteins, lipids or growth factors. Therefore, before use, add a supplement of 10% tryptonophosphate broth as needed. Glasgow MEM uses a sodium bicarbonate buffer system (2.75g/L) and therefore requires a 5-10% CO2 environment to maintain physiological pH.

This product is filtered and sterilized by 0.1 µm membrane, pH 6.7-7.1, containing 25 mM D-glucose, with 2.0 mM L-alanyl-L-glutamine added, no phenol red indicator, no sodium pyruvate, no HEPES buffer system, and no tryptone phosphate broth.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, ,do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



G4558 Glasgow's	MEM	(GMEM)
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Components Concentration		ntration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
L-Arginine hydrochloride	42	0.1990	Calcium Chloride (CaCl₂) (anhyd.)	200	1.8018
L-Cystine 2HCl	31	0.0990	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	2.48E-0 4
L-Glutamine	292	2	Magnesium Sulfate (MgSO₄) (anhyd.)	97.67	0.8139
L-Histidine hydrochloride- H_2O	21	0.1	Potassium Chloride (KCl)	400	5.333
L-Isoleucine	52	0.3969	Sodium Bicarbonate (NaHCO ₃)	2750	32.738
L-Leucine	52	0.3969	Sodium Chloride (NaCl)	6400	110.34
L-Lysine hydrochloride	73	0.3989	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108	0.8985
L-Methionine	15	0.1006	Other components		
L-Phenylalanine	33	0.2	D-Glucose (Dextrose)	4500	25
L-Threonine	47.6	0.3999	Phenol Red	15	0.039
L-Tryptophan	8	0.0392			
L-Tyrosine disodium salt	52	0.1992			
dihydrate dihydrate					
L-Valine	46.8	0.4			
Vitamins					
Choline chloride	2.0	0.0142			
D-Calcium pantothenate	2.0	0.0041			
Folic Acid	2.0	0.0045			
Niacinamide	2.0	0.0163			
Pyridoxine hydrochloride	2.0	0.0098			
Riboflavin	0.2	5.32E-0			
		4			
Thiamine hydrochloride	2.0	0.0059			
Meso-Inositol	3.6	0.02			



Servicebio $\ensuremath{\mathbb{R}}$ α -MEM, nucleosides, GlutaPlus, no phenol red

Cat. No.: G4559-500ML

Product Information

Product Name	Cat. No.	Spec.
α -MEM, nucleosides, GlutaPlus, no phenol red	G4559-500ML	500 mL

Product Description/Introduction

 α -MEM (α Minimum Essential Medium) is a modified medium from MEM. Compared with MEM , α -MEM has added sodium pyruvate, zinc sulfate, vitamin B12, biotin, ascorbic acid and other components, and is widely used for the culture of various mammalian suspension and adherent cells. α -MEM is divided into the types of nucleoside-containing and non-nucleoside-containing. The nucleoside-free and deoxynucleoside -free α -MEM is commonly used as a screening medium for DG44 and other DHFR-deficient cells.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains L-Alanyl-L-Glutamine, sodium pyruvate, nucleoside and deoxynucleoside, without phenol red, without HEPES. Please check the official website for the specific recipe.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concentration		Components	Conce	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	50.0	0.6667	Calcium Chloride	200	1.801802
			(CaCl₂)(anhyd.)		
L-Alanine	25.0	0.2809	Magnesium Sulfate (MgSO4)	97.67	0.813917
			(anhyd.)		
L-Arginine	105.0	0.4976	Potassium Chloride (KCl)	400	5.333
hydrochloride					
$L-Asparagine-H_2O$	50.0	0.3333	Sodium Bicarbonate (NaHCO ₃)	2200	26.2
L-Aspartic Acid	30.0	0.2256	Sodium Chloride (NaCl)	6800	117.2
L-Cystine 2HCl	31.0	0.0990	Sodium Phosphate monobasic	121.7	1.014
			(NaH ₂ PO ₄) (anhyd.)		
L-Cysteine	100.0	0.5682	Other components		
hydrochloride- H_2O					
L-Glutamic Acid	75.0	0.5102	D-Glucose (Dextrose)	1000	5.6
L-Alanyl-L-Glutamine	434.4	2.0	Lipoic Acid	0.20	0.0009709
L-Histidine	42	0.20	Sodium pyruvate	110	1.0
hydrochloride - H_2O					
L-Isoleucine	52.4	0.40	Adenosine	10.00	0.375
L-Leucine	52.0	0.3969	Cytidine	10.00	0.0412
L-Lysine	73.0	0.3989	Guanosine	10.00	0.0353
hydrochloride					
L-Methionine	15.0	0.1007	Uridine	10.00	0.0410
L-Phenylalanine	32.0	0.1939	2'Deoxyadenosine	10.72	0.0398
L-Proline	40.0	0.3478	2'Deoxycytidine HCl	9.46	0.0417
L-Serine	25.0	0.2381	2'Deoxyguanosine	10.68	0.0375
L-Threonine	48.0	0.4034	Thymidine	10.00	0.0413
L-Tryptophan	10.0	0.0490			
L-Tyrosine Disodium	52.0	0.2311			
Salt					
L-Valine	46.0	0.3932			
Vitamins					
Ascorbic Acid	50.0	0.2841			
Biotin	0.10	0.000410			
Choline chloride	1.0	0.007143			
D-Calcium	1.0	0.002096			
pantothenate					
Folic Acid	1.0	0.002268			
Niacinamide	1.0	0.008197	Riboflavin	0.10	0.000266
Pyridoxine	1.0	0.004902	Thiamine	1.0	0.002967
hydrochloride			hydrochloride		

G4554 *a*-MEM Formula

Thiamine	1.0	0.002967			
hydrochloride					
Vitamin B12	1.36	0.001004			
i-Inositol	2.0	0.011111			



Servicebio® Eagle's MEM (EMEM)

Cat. No.: G4650

Product Information

Product Name	Cat. No.	Spec.
Eagle's MEM (EMEM)	G4650-500ML	500 mL

Product Description

Eagle'sMEM (EMEM) medium, Eagle's minimumessentialMedium, also known as minimum essential medium, minimum basic medium or low limit Eagle medium, is developed on the basis of Eagle basic medium (BEM). It is one of the most basic and widely used animal cell medium, hereinafter referred to as EMEM. EMEM medium contains only 12 essential amino acids, glutamine and 8 vitamins, the composition is simple, mainly used for the culture of adherent cells, and can also be used for other types of cell culture after modification.

This product can be used to culture a variety of monolingual mammalian cells, such as cultured cell lines such as HeLa, BHK-21, 293, HEP-2, HT-1080, MCF-7, fibroblasts and primary rat astrocytes. It can also be used to select negative cells transfected with DHFR.

EMEM medium added seven non-essential amino acids (NEAA) including L-alanine, L-glutamic acid, L-asparagine, L-aspartate, L-proline, L-serine and glycine on the basis of MEM medium, which could reduce the side effects of cell production of non-essential amino acids during cell culture and effectively promote cell proliferation and metabolism.

In addition, on the basis of conventional EMEM medium, the content of sodium bicarbonate was reduced and sodium pyruvate was added. This product contains amino acids, vitamins, inorganic salts and other components required for cell culture, and does not contain protein or growth factors. It needs to be used with 5-10% serum or no serum additives according to cell type.

This product is filtered by 0.1µm filter membrane, pH7.0-7.4, adding 2.0 mL-alanyl-L-glutamine, 1.0mM sodium pyruvate, containing 1.5g/L sodium bicarbonate, containing phenol red indicator, without HEPES buffer system.

L-alanyl-l-glutamine is a cell culture additive that can replace medium molar L-glutamine in cell medium. The substance is very stable in aqueous solution and does not degrade spontaneously, but is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, ,do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.


Components	Conce	ntration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Vitamins		
L-Arginine	125.8	0.5972	Choline chloride	1.0	0.0071
					43
L-Cystine 2HCl	31.2	0.09968	D-Calcium pantothenate	1.0	0.0020
					96
L-Alanyl-L-Glutamine	434.4	2.0	Folic Acid	1.0	0.0022
					68
L-Histidine hydrochloride- H_2O	41.0	0.1995	Niacinamide	1.0	0.0081
					97
L-Isoleucine	52.5	0.3969	Pyridoxine hydrochloride	1.0	0.0049
					02
L-Leucine	52.5	0.3969	Riboflavin	0.10	0.0002
					660
L-Lysine hydrochloride	72.5	0.3961	Thiamine hydrochloride	1.0	0.0029
					67
L-Methionine	15.0	0.1007	Meso-Inositol	2.0	0.0111
					1
L-Phenylalanine	32.5	0.1970	Inorganic salts		
L-Threonine	47.8	0.4017	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.8018
L-Tryptophan	10.0	0.04902	Magnesium Sulfate (MgSO₄) (anhyd.)	97.67	0.8139
L-Tyrosine disodium salt	51.0	0.1988	Potassium Chloride (KCl)	400	5.333
dihydrate dihydrate					
L-Valine	46.8	0.4	Sodium Bicarbonate (NaHCO ₃)	1500	17.857
Glycine	7.5	0.1	Sodium Chloride (NaCl)	6800	117.24
L-Alanine	8.9	0.1	Sodium Phosphate monobasic (NaH ₂ PO ₄) (anhyd.)	122	1.0144
L-Asparagine	15.0	0.1136	Other components		
L-Aspartic Acid	13.3	0.1	D-Glucose (Dextrose)	1000	5.5556
L-Glutamic Acid	14.7	0.1	Phenol Red	9.4	0.0265
					7
L-Proline	11.5	0.1	Sodium pyruvate	110	1.0
L-Serine	10.5	0.1		_	

G4650 Eagle's MEM (EMEM)



Servicebio® RPMI-1640 medium, GlutaPlus, no HEPES, no Sodium Pyruvate

Cat. #: G4531-500ML

Product Information

t. No. Spec.	
1 500Ml 500 ml	
1-500IVIL 500 IIIL	
	1-500ML 500 mL

Product Description/Introduction

RPMI refers to Roswell Park Memorial Institute. RPMI-1640 medium was originally developed to culture human leukemic cells in suspnesion and as a monolayer. RPMI-1640 medium is unique from other media because it contains reducing glutathione and high concentrations of vitamins. Rpmi-1640 medium contains biotin, vitamin B12 and para-aminobenzoic acid, which are not found in Eagle's Minimum Essential Medium or Dulbecco's Modified Eagle Medium. In addition, inositol and choline are present in very high concentrations, as well as with or without L-glutamine and sodium pyruvate. Servicebio RPMI-1640 media include phenol red as a pH indicator. All available RPMI-1640 media products contain a sodium bicarbonate buffer with or without HEPES to maintain optimal culture pH.

RPMI-1640 medium has been found sutiable culture for a variety of mammalian cells, including Hela, Juukat, MCF-7, PC-12, PBMC, astrocytes, and carcinomas. RPMI-1640 contains no proteins, lipids, or growth factors. Therefore, DMEM requires supplementation, commonly with 10% Fetal Bovine Serum (FBS). RPMI-1640 uses a sodium bicarbonate buffer system (2.0 g/L) and therefore requires a 5–10% CO_2 environment to maintain physiological pH.

All raw material components used for Servicebio cell culture media products are screened through using strict quality control testing. Servicebio cell culture media are manufactured at a cGMP-compliant facility using water for injection, filtered through final 0.1 µm sterile filtration and aseptic filled in a Hundred-stage FFU. The filter integrity tests are performed before and after filtration. Each lot of cell culture media are subjected to sterility test, pH, osmolality, endotoxin and cell culture test.

The major character of this RPMI-1640 medium is as follows:

- With 11.1 mM Glucose, 2.05 mM GlutaPlus, phenol red.
- Without sodium pyruvate and HEPES.

The complete formulation is available.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation during use to avoid contamination;
- 2. For the best results, do not freeze and thaw repeatedly.



Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	10	0.133	Calcium nitrate (Ca(NO ₃) _{2 4} H ₂ O)	100	0.4237
L-Arginine	241.86	1.149	Magnesium Sulfate (MgSO4)	48.84	0.407
hydrochloride			(anhyd.)		
L-Asparagine hydrate	56.82	0.379	Potassium Chloride (KCl)	400	5.33
L-Aspartic Acid	20	0.15	Sodium Bicarbonate (NaHCO ₃)	2000	23.8
L-Cystine	65.2	0.208	Sodium Chloride (NaCl)	5300	90.6
dihydrochloride					
L-Glutamic Acid	20	0.136	Sodium Phosphate monobasic (NaH ₂ PO ₄) (anhyd.)	800	5.63
L-Histidine HCI H ₂ O	20.22	0.097	Other components		
L-Hydroxyproline	20	0.153	D-Glucose (Dextrose)	2000	11.11
L-Isoleucine	50	0.382	Sodium pyruvate	_	_
L-Leucine	50	0.382	Glutathione (reduced)	1.0	0.003
L-Lysine	40	0.219	HEPES	_	_
hydrochloride					
L-Methionine	15	0.101	Phenol Red	4.6	0.013
L-Phenylalanine	15	0.091			
L-Proline	20	0.174			
L-Serine	30	0.286			
L-Threonine	20	0.168			
L-Tryptophan	5.0	0.025			
L-Tyrosine Disodium	28.83	0.111			
Salt Dihydrate					
L-Valine	20	0.171			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	e 446	2.055			
Vitamins					
Biotin	0.2	0.00082			
Choline chloride	3.0	0.02143			
D-Calcium	0.25	0.00052			
pantothenate					
Folic Acid	1.0	0.00227			
Niacinamide	1.0	0.00820			
Para-Aminobenzoic	1.0	0.00730			
Acid					
Pyridoxine	1.0	0.00485			
hydrochloride					
Riboflavin	0.2	0.00053			
Thiamine	1.0	0.00297			
hydrochloride					
Vitamin B12	0.005	0.00000369			

35

i-Inositol

0.19444

RPMI-1640 Formula



Servicebio® RPMI-1640 medium, Pen-Strep

Cat. #: G4531PS-500ML

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 medium, Pen-Strep	G4531PS-500ML	500 mL

Product Description/Introduction

RPMI refers to Roswell Park Memorial Institute. RPMI-1640 medium was originally developed to culture human leukemic cells in suspnesion and as a monolayer. RPMI-1640 medium is unique from other media because it contains reducing glutathione and high concentrations of vitamins. Rpmi-1640 medium contains biotin, vitamin B12 and para-aminobenzoic acid, which are not found in Eagle's Minimum Essential Medium or Dulbecco's Modified Eagle Medium. In addition, inositol and choline are present in very high concentrationd. Servicebio RPMI-1640 media preparations are available in with glucose or no glucose formulations, as well as with or without L-glutamine and sodium pyruvate. Servicebio RPMI-1640 media include phenol red as a pH indicator. All available RPMI-1640 media products contain a sodium bicarbonate buffer with or without HEPES to maintain optimal culture pH.

RPMI-1640 medium has been found sutiable culture for a variety of mammalian cells, including Hela, Juukat, MCF-7, PC-12, PBMC, astrocytes, and carcinomas. RPMI-1640 contains no proteins, lipids, or growth factors. Therefore, DMEM requires supplementation, commonly with 10% Fetal Bovine Serum (FBS). RPMI-1640 uses a sodium bicarbonate buffer system (2.0 g/L) and therefore requires a 5–10% CO_2 environment to maintain physiological pH.

Penicillin can interfere with the synthesis of bacterial cell walls and is especially effective against gram-positive bacteria. Streptomycin can bind to the 30S subunit of the bacterial ribosome and inhibit the synthesis of bacterial proteins. It is effective against both gram-negative and Gram-positive bacteria, but it is particularly effective against Gram-negative bacteria. The combination of penicillin and streptomycin can prevent most bacterial contamination.

All raw material components used for Servicebio cell culture media products are screened through using strict quality control testing. Servicebio cell culture media are manufactured at a cGMP-compliant facility using water for injection, filtered through final 0.1 µm sterile filtration and aseptic filled in a Hundred-stage FFU. The filter integrity tests are performed before and after filtration. Each lot of cell culture media are subjected to sterility test, pH, osmolality, endotoxin and cell culture test.

The major character of this RPMI-1640 medium is as follows:

- With 11.1 mM Glucose, 2.05 mM GlutaPlus, phenol red.
- With 100 KU/L penicillin G sodium salt, 100 mg/L streptomycin sulfate
- Without sodium pyruvate and HEPES.

The complete formulation is available.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation during use to avoid contamination;
- Avoid freezing the medium, as ice formation can lead to precipitation of nutrients, which may not fully
 dissolve upon thawing, affecting cell culture performance. Additionally, when storing the medium at
 2-8°C in a refrigerator, do not place it directly against the inner wall to prevent local chilling that could
 cause the medium to freeze.



Servicebio® RPMI-1640 medium, GlutaPlus, HEPES, no Sodium Pyruvate

Cat. No.: G4532-500ML

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 medium, GlutaPlus, HEPES, no Sodium Pyruvate	G4532-500ML	500 mL

Product Description

The RPMI-1640 stands for Roswell Park Memorial Institute, and RPMI-1640 is a cell culture medium developed by the institute. Originally designed specifically for lymphocyte culture, it is now one of the most widely used media for the culture of normal and cancerous cells, particularly in suspension.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1µm filtration membrane, pH 7.0-7.4, contains 11.1 mM D-glucose, 2.05 mM L-alanyl-L-glutamine,, phenol red indicator, 25 mM HEPES buffer system, no sodium pyruvate.

L-alanyl-L-glutamine, is a cell culture additive that replaces medium moles of L-glutamine in cell culture media. The substance is stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells. HEPES is an excellent biological buffering agent with no toxic effect on cells, and the medium supplemented with HEPES can maintain a constant pH range for a long time.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



G4532 RPMI-1640 Medium Formula

Components	Concentration		
	mg/L	mM	
Amino acids			
Glycine	10	0.133	
L-Arginine hydrochloride	241.86	1.149	
L-Asparagine hydrate	56.82	0.379	
L-Aspartic Acid	20	0.15	
L-Cystine dihydrochloride	65.2	0.208	
L-Glutamic Acid	20	0.136	
L-Histidine HCI H ₂ O	20.22	0.097	
L-Hydroxyproline	20	0.153	
L-Isoleucine	50	0.382	
L-Leucine	50	0.382	
L-Lysine hydrochloride	40	0.219	
L-Methionine	15	0.101	
L-Phenylalanine	15	0.091	
L-Proline	20	0.174	
L-Serine	30	0.286	
L-Threonine	20	0.168	
L-Tryptophan	5.0	0.025	
L-Tyrosine Disodium Salt	28.83	0.111	
Dihydrate			
L-Valine	20	0.171	
L-Glutamine	-	-	
L-Alanyl-L-Glutamine	446	2.055	
Vitamins			
Biotin	0.2	0.00082	
Choline chloride	3.0	0.02143	
D-Calcium pantothenate	0.25	0.00052	
Folic Acid	1.0	0.00227	
Niacinamide	1.0	0.00820	
Para-Aminobenzoic Acid	1.0	0.00730	
Pyridoxine hydrochloride	1.0	0.00485	
Riboflavin	0.2	0.00053	
Thiamine hydrochloride	1.0	0.00297	
Vitamin B12	0.005	0.00000369	
i-Inositol	35	0.19444	

Components		entration
	mg/L	mM
Inorganic salts		
Calcium nitrate (Ca(NO ₃) _{2 4} H_2O)	100	0.4237
Magnesium Sulfate (MgSO4) (anhyd.)	48.84	0.407
Potassium Chloride (KCI)	400	5.33
Sodium Bicarbonate (NaHCO3)	2000	23.8
Sodium Chloride (NaCl)	5300	90.6
Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	008 (5.63
Other components		
D-Glucose (Dextrose)	2000	11.11
Sodium pyruvate	-	-
Glutathione (reduced)	1.0	0.003
HEPES	5958	25
Phenol Red	4.6	0.013



Servicebio® RPMI-1640 medium, no L-Glutamine, no HEPES, no Sodium Pyruvate

Cat. No.: G4534-500ML

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 medium, no L-Glutamine, no HEPES, no	C4534 500MI	500 ml
Sodium Pyruvate	04004-000ML	500 ML

Product Description/Introduction

RPMI-1640 is a cell culture medium developed by the Roswell Park Memorial Institute (RPMI). This medium was originally designed specifically for lymphocytes culture, now is widely used for various normal cell and cancer cell culture, especially for cell suspension culture, and is one of the most widely used medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 1.1 mM D-glucose, phenol red indicator, without HEPES, L-glutamine, sodium pyruvate.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



		01001101			
Components	Conce	entration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	10	0.133	Calcium nitrate (Ca(NO ₃) _{2 4} H ₂ O)	100	0.4237
L-Arginine	241.86	1.149	Magnesium Sulfate (MgSO ₄)	48.84	0.407
hydrochloride			(anhyd.)		
L-Asparagine hydrate	56.82	0.379	Potassium Chloride (KCl)	400	5.33
L-Aspartic Acid	20	0.15	Sodium Bicarbonate (NaHCO ₃)	2000	23.8
L-Cystine	65.2	0.208	Sodium Chloride (NaCl)	6000	103.4
dihydrochloride					
L-Glutamic Acid	20	0.136	Sodium Phosphate monobasic (NaH ₂ PO₄) (anhyd.)	800	5.63
L-Histidine HCl H ₂ O	20.22	0.097	Other components		
L-Hydroxyproline	20	0.153	D-Glucose (Dextrose)	2000	11.11
L-Isoleucine	50	0.382	Sodium pyruvate	_	_
L-Leucine	50	0.382	Glutathione (reduced)	1.0	0.003
L-Lysine	40	0.219	HEPES	_	_
hydrochloride					
L-Methionine	15	0.101	Phenol Red	4.6	0.013
L-Phenylalanine	15	0.091			
L-Proline	20	0.174			
L-Serine	30	0.286			
L-Threonine	20	0.168			
L-Tryptophan	5.0	0.025			
L-Tyrosine Disodium	28.83	0.111			
Salt Dihydrate					
L-Valine	20	0.171			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	-	-			
Vitamins					
Biotin	0.2	0.00082			
Choline chloride	3.0	0.02143			
D-Calcium	0.25	0.00052			
pantothenate					
Folic Acid	1.0	0.00227			
Niacinamide	1.0	0.00820			
Para-Aminobenzoic	1.0	0.00730			
Acid					
Pyridoxine	1.0	0.00485			
hydrochloride					
Riboflavin	0.2	0.00053			
Thiamine	1.0	0.00297			
hydrochloride					
Vitamin B12	0.005	0.00000369			

35

0.19444

i-Inositol

G4534 RPMI-1640 Formula



Servicebio® RPMI-1640 medium, GlutaPlus, HEPES, Sodium Pyruvate

Cat. No.: G4535-500ML

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 medium, GlutaPlus, HEPES, Sodium Pyruvate	G4535-500ML	500 mL

Product Description/Introduction

RPMI-1640 is a cell culture medium developed by the Roswell Park Memorial Institute (RPMI). This medium was originally designed specifically for lymphocytes culture, now is widely used for various normal cell and cancer cell culture, especially for cell suspension culture, and is one of the most widely used medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 11.1 mM D-glucose, 2.05mM L-Alanyl-L-Glutamine, phenol red indicator, HEPES and sodium pyruvate.

L-Alanyl-L-Glutamine is a cell culture additive, replaces the equivalent molar amount of L-glutamine in cell culture medium. It is very stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded to release glutamine through the peptidase secreted by cells, then absorbed and utilized by cells.

HEPES is an excellent biological buffer with no toxic effect on cells, and the medium with HEPES can maintain a constant pH range for a longer period of time.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.

Components	Conce	entration	Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	10	0.133	Calcium nitrate (Ca(NO ₃) _{2 4} H ₂ O)	100	0.4237
L-Arginine	241.86	1.149	Magnesium Sulfate (MgSO4)	48.84	0.407
hydrochloride			(anhyd.)		
L-Asparagine hydrate	56.82	0.379	Potassium Chloride (KCl)	400	5.33
L-Aspartic Acid	20	0.15	Sodium Bicarbonate (NaHCO ₃)	2000	23.8
L-Cystine	65.2	0.208	Sodium Chloride (NaCl)	5300	90.6
dihydrochloride					
L-Glutamic Acid	20	0.136	Sodium Phosphate monobasic (NaH₂PO₄) (anhyd.)	800	5.63
L-Histidine HCl H ₂ O	20.22	0.097	Other components		
L-Hydroxyproline	20	0.153	D-Glucose (Dextrose)	2000	11.11
L-Isoleucine	50	0.382	Sodium pyruvate	110	1.0
L-Leucine	50	0.382	Glutathione (reduced)	1.0	0.003
L-Lysine	40	0.219	HEPES	5958	25
hydrochloride					
L-Methionine	15	0.101	Phenol Red	4.6	0.013
L-Phenylalanine	15	0.091			
L-Proline	20	0.174			
L-Serine	30	0.286			
L-Threonine	20	0.168			
L-Tryptophan	5.0	0.025			
L-Tyrosine Disodium Salt Dihydrate	28.83	0.111			
L-Valine	20	0.171			
L-Alanyl-L-Glutamine	446	2.055			
Vitamins					
Biotin	0.2	0.00082			
Choline chloride	3.0	0.02143			
D-Calcium	0.25	0.00052			
pantothenate					
Folic Acid	1.0	0.00227			
Niacinamide	1.0	0.00820			
Para-Aminobenzoic Acid	1.0	0.00730			
Pyridoxine hydrochloride	1.0	0.00485			
Riboflavin	0.2	0.00053			
Thiamine hydrochloride	1.0	0.00297			

Vitamin B12

i-Inositol

0.005

35

0.00000369

0.19444

G4535 RPMI-1640 Formula



Servicebio® RPMI-1640 medium, GlutaPlus, no phenol red

Cat. No.: G4536-500ML

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 medium, GlutaPlus, no phenol red	G4536-500ML	500 mL

Product Description/Introduction

RPMI-1640 is a cell culture medium developed by the Roswell Park Memorial Institute (RPMI). This medium was originally designed specifically for lymphocytes culture, now is widely used for various normal cell and cancer cell culture, especially for cell suspension culture, and is one of the most widely used medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 11.1 mM D-glucose, 2.05mM L-Alanyl-L-Glutamine, without phenol red indicator, HEPES and sodium pyruvate.

L-Alanyl-L-Glutamine is a cell culture additive, replaces the equivalent molar amount of L-glutamine in cell culture medium. It is very stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded to release glutamine through the peptidase secreted by cells, then absorbed and utilized by cells.

Phenol Red is the most commonly used pH indicator in cell culture medium and is used to continuously monitor the pH of the culture medium. When the pH of the culture medium is low, the culture medium appears orange to yellow, when the pH is high, the culture medium appears purple-red. The culture medium is red when the pH is 7.0-7.4, it is most suitable for cell culture. Phenol Red is a structural analogue of steroid hormone. Studies have shown that phenol red added to the medium mimics the effects of steroid hormones (especially estrogen) and therefore when used in estrogen-sensitive cells, for example, for breast tissue cells, it is best to use a phenol red-free medium. In addition, phenol red also can interfere with flow cytometry analytical assays.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.

Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	10	0.133	Calcium nitrate (Ca(NO ₃) _{2 4} H ₂ O)	100	0.4237
L-Arginine	241.86	1.149	Magnesium Sulfate (MgSO ₄)	48.84	0.407
hydrochloride			(anhyd.)		
L-Asparagine hydrate	56.82	0.379	Potassium Chloride (KCl)	400	5.33
L-Aspartic Acid	20	0.15	Sodium Bicarbonate (NaHCO ₃)	2000	23.8
L-Cystine	65.2	0.208	Sodium Chloride (NaCl)	6000	103.4
dihydrochloride					
L-Glutamic Acid	20	0.136	Sodium Phosphate monobasic (NaH₂PO₄) (anhyd.)	800	5.63
L-Histidine HCI H ₂ O	20.22	0.097	Other components		
L-Hydroxyproline	20	0.153	D-Glucose (Dextrose)	2000	11.11
L-Isoleucine	50	0.382	Glutathione (reduced)	1.0	0.003
L-Leucine	50	0.382			
L-Lysine	40	0.219			
hydrochloride					
L-Methionine	15	0.101			
L-Phenylalanine	15	0.091			
L-Proline	20	0.174			
L-Serine	30	0.286			
L-Threonine	20	0.168			
L-Tryptophan	5.0	0.025			
L-Tyrosine Disodium	28.83	0.111			
Salt Dihydrate					
L-Valine	20	0.171			
L-Alanyl-L-Glutamine	446	2.055			
Vitamins					
Biotin	0.2	0.00082			
Choline chloride	3.0	0.02143			
D-Calcium	0.25	0.00052			
pantothenate					
Folic Acid	1.0	0.00227			
Niacinamide	1.0	0.00820			
Para-Aminobenzoic Acid	1.0	0.00730			
Pyridoxine hydrochloride	1.0	0.00485			
Riboflavin	0.2	0.00053			
	1.0	0.00297			
/itamin R12	0.005	0 00000360			
	0.000	0.00000309			

35

i-Inositol

0.19444

G4536 RPMI-1640 Formula



Servicebio® RPMI-1640 medium, no L-Glutamine, no calcium

Cat. No.: G4537-500ML

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 medium, no L-Glutamine, no calcium	G4537-500ML	500 mL

Product Description/Introduction

RPMI-1640 is a cell culture medium developed by the Roswell Park Memorial Institute (RPMI). This medium was originally designed specifically for lymphocytes culture, now is widely used for various normal cell and cancer cell culture, especially for cell suspension culture, and is one of the most widely used medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm membrane, pH 7.0-7.4, containing 11.1 mM D-glucose, phenol red indicator, calcium nitrate has not been added, no L-glutamine, no sodium pyruvate, no HEPES buffer system.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	entration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	10	0.133	Magnesium Sulfate (MgSO₄) (anhyd.)	48.84	0.407
L-Arginine	241.86	1.149	Potassium Chloride (KCI)	400	5.33
hydrochloride					
L-Asparagine hydrate	56.82	0.379	Sodium Bicarbonate (NaHCO ₃)	2000	23.8
L-Aspartic Acid	20	0.15	Sodium Chloride (NaCl)	6000	103.4
L-Cystine	65.2	0.208	Sodium Phosphate monobasic	800	5.63
dihydrochloride			(NaH ₂ PO ₄) (anhyd.)		
L-Glutamic Acid	20	0.136	Other components		
L-Histidine HCl H ₂ O	20.22	0.097	D-Glucose (Dextrose)	2000	11.11
L-Hydroxyproline	20	0.153	Glutathione (reduced)	1.0	0.003
L-Isoleucine	50	0.382	Phenol Red	4.6	0.013
L-Leucine	50	0.382			
L-Lysine	40	0.219			
hydrochloride					
L-Methionine	15	0.101			
L-Phenylalanine	15	0.091			
L-Proline	20	0.174			
L-Serine	30	0.286			
L-Threonine	20	0.168			
L-Tryptophan	5.0	0.025			
L-Tyrosine Disodium	28.83	0.111			
Salt Dihydrate					
L-Valine	20	0.171			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	-	-			
Vitamins					
Biotin	0.2	0.00082			
Choline chloride	3.0	0.02143			
D-Calcium	0.25	0.00052			
pantothenate					
Folic Acid	1.0	0.00227			
Niacinamide	1.0	0.00820			
Para-Aminobenzoic Acid	1.0	0.00730			
Pyridoxine hydrochloride	1.0	0.00485			
Riboflavin	0.2	0.00053			

G4537 RPMI-1640 Formula



Thiamine	1.0	0.00297
hydrochloride		
Vitamin B12	0.005	0.00000369
i-Inositol	35	0.19444



Product Introduction		
Product Information		
Product Name	Cat. No.	Spec.
RPMI-1640 Medium, GlutaPlus, no Glucose, no HEPES, no Sodium Pyruvate	G4538-500ML	500 mL

Product Description/Introduction

RPMI-1640 is a cell culture medium developed by the Roswell Park Memorial Institute (RPMI).

This medium was originally designed specifically for lymphocytes culture, nowis widely used for various normalcelland cancer cell culture, especially for cell suspension culture, and is one of the most widely used medium.

RPMI-1640 medium generally contains 11.1 mM of D-glucose, while RPMI-1640 medium without D-glucose allows the glucose concentration to be adjusted at will according to research needs.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors.N

eed to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 2.05 mM L-Alanyl-L-Glutamine, phenol red indicator, noD-glucose, HEPES and sodium pyruvate.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

Note

1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.

- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, glovesand protective clothing.



Servicebio® RPMI-1640 medium, no phenol red, no phosphate

Cat. No.: G4539-500ML

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 medium, no phenol red, no phosphate	G4539-500ML	500 mL

Product Description/Introduction

RPMI-1640 is a cell culture medium developed by the Roswell Park Memorial Institute (RPMI). This medium was originally designed specifically for lymphocytes culture, now is widely used for various normal cell and cancer cell culture, especially for cell suspension culture, and is one of the most widely used medium. This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered by 0.1µm filter membrane, pH7.0-7.4, containing 11.1 mmD-glucose, adding 2.05 mL-alanyl-L-glutamine, no phosphate, no phenol red, no sodium pyruvate, no HEPES buffer system. L-alanyl-I-glutamine is a cell culture additive that can replace medium molar L-glutamine in cell medium. The substance is very stable in aqueous solution and does not degrade spontaneously, but is slowly degraded by a peptidase secreted by cells to release glutamine, which is then absorbed and used by cells.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves or protective clothing.



Components	Conce	entration	Components	Conce	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	10	0.133	Calcium nitrate(Ca(NO ₃) ₂ ·H ₂ O	100	0.4237
L-Arginine	241.86	1.149	Magnesium Sulfate (MgSO ₄)	48.84	0.407
hydrochloride			(anhyd.)		
L-Asparagine hydrate	56.82	0.379	Potassium Chloride (KCl)	400	5.33
L-Aspartic Acid	20	0.15	Sodium Bicarbonate (NaHCO ₃)	800	9.5238
L-Cystine	65.2	0.208	Sodium Chloride (NaCl)	5300	90.6
dihydrochloride					
L-Glutamic Acid	20	0.136	Sodium Phosphate monobasic	-	-
			(NaH ₂ PO ₄) (anhyd.)		
L-Histidine HCl H ₂ O	20.22	0.097	Other components		
L-Hydroxyproline	20	0.153	D-Glucose (Dextrose)	2000	11.11
L-Isoleucine	50	0.382	Glutathione (reduced)	1.0	0.003
L-Leucine	50	0.382	Phenol Red	4.6	0.013
L-Lysine	40	0.219			
hydrochloride					
L-Methionine	15	0.101			
L-Phenylalanine	15	0.091			
L-Proline	20	0.174			
L-Serine	30	0.286			
L-Threonine	20	0.168			
L-Tryptophan	5.0	0.025			
L-Tyrosine Disodium	28.83	0.111			
Salt Dihydrate					
L-Valine	20	0.171			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	-	-			
Vitamins					
Biotin	0.2	0.00082			
Choline chloride	3.0	0.02143			
D-Calcium	0.25	0.00052			
pantothenate					
Folic Acid	1.0	0.00227			
Niacinamide	1.0	0.00820			
Para-Aminobenzoic	1.0	0.00730			
Acid					
Pyridoxine	1.0	0.00485			
hydrochloride					
Riboflavin	0.2	0.00053			

G4539 RPMI-1640 Formula



Thiamine	1.0	0.00297
hydrochloride		
Vitamin B12	0.005	0.00000369
i-Inositol	35	0.19444



Servicebio® Ham's F-12, GlutaPlus

Cat. No.: G4562-500ML

Product Information

Product Name	Cat. No.	Spec.
Ham's F-12, GlutaPlus	G4562-500ML	500 mL

Product Description/Introduction

Ham's F-12 (Ham's F-12 Nutrient Mixture) is based on Ham's F-10 nutrient mix and was originally designed for serum-free culture of CHO cells. Ham's F-12 is often used as a basal culture medium for serum-free cultures and is particularly suitable for single cell cultures and clonogenic cultures at low serum levels. It is also widely used in the culture of tumor cells and primary cells by adding serum, such as rat hepatocytes, rat prostate epithelial cells, chondrocytes, rat myogenic cells, chicken embryonic cells, etc. In addition, Ham's F-12 is mixed with DMEM in equal volume to obtain a more nutrient-rich DMEM/F-12 medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 10 mM D-Glucose, 1.0 mM L-Alanyl-L-Glutamine, 1.0 mM sodium pyruvate and phenol red indicator, without HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Con	nponents	nponents Conce
	mg/L	mM			mg/L
Amino acids			Inorg	ganic salts	ganic salts
Glycine	7.507	0.1	Potassi	um Chloride (KCl)	um Chloride (KCl) 223.6
L-Alanine	8.90	0.1	Sodium B	icarbonate (NaHCO ₃)	icarbonate (NaHCO ₃) 1176
L-Arginine	210.66	1.0	Sodium Chle	oride (NaCl)	oride (NaCl) 7599
hydrochloride					
L-Asparagine- H_2O	15.02	0.1	Dibasic sodium	phosphate	phosphate 141.96
			(Na₂HPO₄) (anhyd	.)	.)
L-Aspartic Acid	13.31	0.1	Calcium Chloride		33.22
			(CaCl₂)(anhyd.)		
L-Cysteine	35.05	0.20	Copper Sulfate Pent	ahydrate	ahydrate 0.0025
hydrochloride-H ₂ O			$(CuSO_4 \cdot 5H_2O)$		
L-Glutamic Acid	14.71	0.1	Iron Sulfate Heptahyo	drate	drate 0.834
			$(FeSO_4 \cdot 5H_2O)$		
L-Alanyl-L-Glutamine	217.2	1.0	Magnesium Chloride		57.35
			(MgCl ₂)(anhyd.)		
L-Histidine	20.96	0.1	Zinc Sulfate Heptahydrat	e	e 0.862
hydrochloride- H_2O			$(ZnSO_4 \cdot 7H_2O)$		
L-Isoleucine	4.005	0.031	Other components		
L-Leucine	13.12	0.1	D-Glucose (Dextrose)		1802.0
L-Lysine	36.5	0.199	Phenol red		1.13
hydrochloride					
L-Methionine	4.5	0.03	Sodium pyruvate		110
L-Phenylalanine	5.0	0.03	Hypoxanthine		4.083
L-Proline	34.5	0.3	Linoleic Acid		0.084
L-Serine	10.5	0.1	Alphalipoic Acid		0.210
L-Threonine	11.9	0.10	Diaminobutane		0.161
			dihydrochloride		
L-Tryptophan	2.0	0.01	Thymidine		0.701
L-Tyrosine Disodium	7.8	0.0298			
Salt					
L-Valine	11.7	0.1			
Vitamins					
Biotin	0.0073	0.0000299			
Choline chloride	14	0.1			
D-Calcium	0.50	0.001048			
pantothenate					

Folic Acid

Niacinamide

1.30

0.04

0.002948

0.000295

G4562 Ham's F-12 Formula

Pyridoxine	0.06	0.000291
hydrochloride		
Riboflavin	0.04	0.000098
Thiamine	0.30	0.000890
hydrochloride		
Vitamin B12	1.40	0.001033
i-Inositol	18	0.1



Servicebio® Ham's F-12, no L-Glutamine

Cat #: G4563-500ML

Product Information

Product Name	Cat. No.	Spec.
Ham's F-12, no L-Glutamine	G4563-500ML	500 mL

Product Description/Introduction

Ham's F-12 nutriment Mixture is based on Ham's F-10 nutriment mixture, and it is originally used for serum-free culture of CHO cells. Ham's F-12 is often used as the basic medium for serum-free culture, especially suitable for single cell culture and clonal culture at low serum levels. It is also widely used in the culture of tumor cells and primary cells after adding serum, such as rat hepatocytes, rat prostate epithelial cells, chondrocytes, rat myoblasts and chicken embryonic cells. In addition, Ham's F-12 can be mixed with DMEM in equal volumes to give a more nutritious DMEM/F-12 medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains 10 mM D-glucose, 1.0 mM sodium pyruvate, phenol red indicator, no HEPES buffer system and L-glutamine.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mМ
Amino acids			Inorganic salts		
Glycine	7.507	0.1	Potassium Chloride (KCI)	223.6	2.98
L-Alanine	8.90	0.10	Sodium bicarbonate(NaHCO ₃)	1176	14
L-Arginine monohydrochloride	210.66	1.0	Sodium chloride (NaCl)	7599	131.02
L-Asparagine monohydrate	15.02	0.10	Sodium Phosphate dibasic (Na $_2HPO_4$) (anhyd.)	141.96	1.0
L-Asparagine	13.31	0.1	Calcium Chloride (CaCl₂)(anhyd.)	33.22	0.30
L-Cysteine hydrochloride hydrate	35.05	0.20	Cupric Sulfate (CuSO4·5H2O)	0.0025	0.00001
L-Glutamic acid	14.71	0.1	Ferrous Sulfate (FeSO ₄ ·7H ₂ O)	0.834	0.003
L-Glutamine	-	-	Magnesium chloride (MgCl₂)(anhyd.)	57.35	0.60
L-Histidine hydrochloride monohydrate	e 20.96	0.1	Zinc Sulfate(ZnSO ₄ ·7H ₂ O)	0.862	0.003
L-Isoleucine	4.005	0.031	Other components		
L-Leucine	13.12	0.1	D-Glucose (Dextrose)	1802.0	10.01
L-Lysinehydrochloride	36.50	0.199	Hypoxanthine	1.13	0.00319
L-Methionine	4.51	0.03	Lipoic acid	110	1.0
L-Phenylalanine	5.01	0.03	Phenol Red	4.083	0.03
L-Proline	34.5	0.3	Putrescine 2HCI	0.084	0.0003
L-Serine	10.5	0.1	Sodium pyruvate	0.210	0.00102
L-Threonine	11.9	0.10	Thymidine	0.16107	0.001
L-Tryptophan	2.0	0.01	D-Glucose (Dextrose)	0.701	0.00289
L-Tyrosine disodium salt	7.8	0.0298			
L-Valine	11.7	0.1			
Vitamins					
Biotin	0.0073	0.000029 9			
Choline chloride	14	0.1			
D-Calcium pantothenate	0.50	0.001048			
Folic Acid	1.30	0.002948			
Niacinamide	0.04	0.000295			
Pyridoxine hydrochloride	0.06	0.000291			
Riboflavin	0.04	0.000098			
Thiamine hydrochloride	0.30	0.000890			

1.40

18

0.001033

0.1

Vitamin B12

i-Inositol

Ham's F-12 medium, no L-Glutamine Formula



Servicebio® Ham's F-12, no phenol red

Cat. No.: G4590-500ML

Product Information

Product Name	Cat. No.	Spec.
Ham's F-12, no phenol red	G4590-500ML	500 mL

Product Description/Introduction

Ham's F-12 (Ham's F-12 Nutrient Mixture) is based on Ham's F-10 nutrient mix and was originally designed for serum-free culture of CHO cells. Ham's F-12 is often used as a basal culture medium for serum-free cultures and is particularly suitable for single cell cultures and clonogenic cultures at low serum levels. It is also widely used in the culture of tumor cells and primary cells by adding serum, such as rat hepatocytes, rat prostate epithelial cells, chondrocytes, rat myogenic cells, chicken embryonic cells, etc. In addition, Ham's F-12 is mixed with DMEM in equal volume to obtain a more nutrient-rich DMEM/F-12 medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains 10 mM D-Glucose, 1.0 mM L-Alanyl-L-Glutamine and 1.0 mM sodium pyruvate, no phenol red indicator, no HEPES buffer system.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	entration	Components	Concentration		
	mg/L	mM		mg/L	mM	
Amino acids			Inorganic salts			
Glycine	7.507	0.1	Potassium Chloride (KCI)	223.6	2.98	
L-Alanine	8.90	0.1	Sodium Bicarbonate (NaHCO ₃)	1176	14	
L-Arginine	210.66	1.0	Sodium Chloride (NaCl)	7599	131.02	
hydrochloride						
$L-Asparagine-H_2O$	15.02	0.1	Dibasic sodium phosphate	141.96	1.0	
			(Na ₂ HPO ₄) (anhyd.)			
L-Aspartic Acid	13.31	0.1	Calcium Chloride	33.22	0.30	
			(CaCl ₂)(anhyd.)			
L-Cysteine	35.05	0.20	Copper Sulfate Pentahydrate	0.0025	0.00001	
hydrochloride- H_2O			$(CuSO_4 \cdot 5H_2O)$			
L-Glutamic Acid	14.71	0.1	Iron Sulfate Heptahydrate	0.834	0.003	
			$(FeSO_4 \cdot 5H_2O)$			
L-Alanyl-L-Glutamine	217.2	1.0	Magnesium Chloride	57.35	0.60	
			(MgCl ₂)(anhyd.)			
L-Histidine	20.96	0.1	Zinc Sulfate Heptahydrate	0.862	0.003	
hydrochloride- H_2O			(ZnSO₄·7H₂O)			
L-Isoleucine	4.005	0.031	Other components			
L-Leucine	13.12	0.1	D-Glucose (Dextrose)	1802.0	10.01	
L-Lysine	36.5	0.199	Phenol red	-	_	
hydrochloride						
L-Methionine	4.5	0.03	Sodium pyruvate	110	1.0	
L-Phenylalanine	5.0	0.03	Hypoxanthine	4.083	0.03	
L-Proline	34.5	0.3	Linoleic Acid	0.084	0.0003	
L-Serine	10.5	0.1	Alphalipoic Acid	0.210	0.00102	
L-Threonine	11.9	0.10	Diaminobutane	0.161	0.001	
			dihydrochloride			
L-Tryptophan	2.0	0.01	Thymidine	0.701	0.00289	
L-Tyrosine Disodium	7.8	0.0298				
Salt						
L-Valine	11.7	0.1				
Vitamins						
Biotin	0.0073	0.0000299				
Choline chloride	14	0.1				
D-Calcium	0.50	0.001048				
pantothenate						

Folic Acid

Niacinamide

1.30

0.04

0.002948

0.000295

G4590 Ham's F-12 Formula

Pyridoxine	0.06	0.000291
hydrochloride		
Riboflavin	0.04	0.000098
Thiamine	0.30	0.000890
hydrochloride		
Vitamin B12	1.40	0.001033
i-Inositol	18	0.1



Servicebio® Ham's F-12K, GlutaPlus

Cat. No.: G4560-500ML

Product Information

Product Name	Cat. No.	Spec.
Ham's F-12K, GlutaPlus	G4560-500ML	500 mL

Product Description/Introduction

Ham's F-12K medium is a Kaighn's improved version of Ham's F-12 nutrient mix, originally designed for culturing primary human hepatocytes and differentiated mouse and chicken cells under low serum conditions. Ham's F-12K improves the amino acid and sodium pyruvate concentration, reduces the glucose content, and modifies the composition and content of inorganic salts based on the original Ham's F-12.Compared to other medium, Ham's F-12K contains many unique components such as putrescine, thymine, hypoxanthine, and zinc, in addition to a higher content of sodium pyruvate.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 7.0 mM D-Glucose, 2.0 mM L-Alanyl-L-Glutamine, 2.0 mM sodium pyruvate and phenol red indicator, without HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

Note

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.

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				Concentration		
	mg/L	mM		mg/L	mM	
Amino acids			Inorganic salts			
Glycine	15	0.2	Calcium Chloride	102	0.9189	
			(CaCl₂)(anhyd.)			
L-Alanine	18	0.2022	Copper Sulfate Pentahydrate	0.002	0.0000080	
			(CuSO ₄ ·5H ₂ O)			
L-Arginine	422	2.0	Iron Sulfate Heptahydrate	0.8	0.002878	
hydrochloride			$(FeSO_4 \cdot 5H_2O)$			
$L-Asparagine-H_2O$	30	0.2	Magnesium Chloride	49.7	0.5231	
			(MgCl₂)(anhyd.)			
L-Aspartic Acid	26.6	0.2	Magnesium Sulfate (MgSO4)	192	1.600	
			(anhyd.)			
L-Cysteine	70	0.3977	Potassium Chloride (KCl)	285	3.8000	
hydrochloride - H_2O						
L-Glutamic Acid	29	0.1973	Sodium Bicarbonate (NaHCO ₃)	2500	29.76	
L-Alanyl-L-Glutamine	e 434.4	2	Sodium Chloride (NaCl)	7530	129.9	
L-Histidine	45.8	0.2181	Dibasic sodium phosphate	115.5	0.813	
hydrochloride - H_2O			(Na₂HPO₄) (anhyd.)			
L-Isoleucine	7.88	0.06015	Sodium dihydrogen Phosphate	59.0	0.492	
			monobasic (NaH₂PO₄) (anhyd.)			
L-Leucine	26.2	0.2	Zinc Sulfate Heptahydrate	0.144	0.0005	
			(ZnSO ₄ ·7H ₂ O)			
L-Lysine	73	0.3989	Other components			
hydrochloride						
L-Methionine	8.96	0.06013	D-Glucose (Dextrose)	1260	7	
L-Phenylalanine	9.92	0.06012	Hypoxanthine	4	0.03053	
L-Proline	69	0.6	Alphalipoic Acid	0.21	0.001019	
L-Serine	21	0.2	Phenol red	3	0.007970	
L-Threonine	23	0.1933	Diaminobutane	0.32	0.001987	
			dihydrochloride			
L-Tryptophan	4.1	0.02010	Sodium pyruvate	220	2.0	
L-Tyrosine Disodium	13.5	0.05153	Thymine	0.7	0.002892	
Salt						
L-Valine	23	0.1966				
Vitamins						
Biotin	0.07	0.0002869				
Choline chloride	14	0.10				
D-Calcium	0.5	0.001048				
pantothenate						
Folic Acid	1.3	0.002948				

G4560 Ham's F-12K Formula

Niacinamide	0.037	0.0003033
Pyridoxine	0.06	0.0002913
hydrochloride		
Riboflavin	0.04	0.0001064
Thiamine	0.3	0.0008902
hydrochloride		
Vitamin B12	1.4	0.001033
i-Inositol	18	0.10



Servicebio® Ham's F-12K, no L-Glutamine

Cat #: G4561-500ML

Product Information

Product Name	Cat. No.	Spec.
Ham's F-12K, no L-Glutamine	G4561-500ML	500 mL

Product Description/Introduction

Ham's F-12K (Kaighn's) Medium is a modification of Ham's F-12 Nutrient Mixture. Ham's F-12K (Kaighn's) Medium was developed for primary human hepatocytes, as well as for some rat and chicken liver cells in a reduced serum environment. Ham's F-12K improves the concentration of amino acid and pyruvate, reduces the content of glucose, and modifies the composition and content of inorganic salts on the basis of the original Ham's F-12. Compared with other media, Ham's F-12K contains many unique components, such as putrescine, thymidine, hypoxanthine, zinc, in addition to a higher content of sodium pyruvate.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, no protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 7.0 mM D-glucose, 2.0 mM sodium pyruvate, phenol red indicator, no HEPES buffer system and L-glutamine.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Components	Concentration		Components		Concentration	
	mg/L	mM		mg/L	. mM	
Amino acids			Inorganic salts			
Glycine	15	0.2	Calcium Chloride (CaCl₂)(anhyd.)	102	0.9189	
L-Alanine	18	0.2022	Cupric Sulfate (CuSO ₄ ·5H ₂ O)	0.002	0.00008	
L-Arginine monohydrochloride	422	2.0	Ferrous Sulfate (FeSO ₄ ·7H ₂ O)	0.8	0.002878	
L-Asparagine monohydrate	30	0.2	Magnesium chloride (MgCl₂)(anhyd.)	49.7	0.5231	
L-Asparagine	26.6	0.2	Magnesium sulfate(MgSO₄)(anhyd.)	192	1.600	
L-Cysteine hydrochloride hydrate	70	0.3977	Potassium Chloride (KCl)	285	3.800	
L-Glutamic acid	29	0.1973	Sodium bicarbonate(NaHCO₃)	2500	29.76	
L-Glutamine	_	-	Sodium chloride (NaCl)	7530	129.9	
L-Histidine hydrochloride monohydrate	45.8	0.2181	Sodium Phosphate dibasic (Na₂HPO₄) (anhyd.)	115.5	0.813	
L-Isoleucine	7.88	0.06015	Sodium Phosphate monobasic (NaH ₂ PO ₄) (anhyd.)	59.0	0.492	
L-Leucine	26.2	0.2	Zinc Sulfate(ZnSO ₄ ·7H ₂ O)	0.144	0.0005	
L-Lysinehydrochloride	73	0.3989	Other components			
L-Methionine	8.96	0.06013	D-Glucose (Dextrose)	1260	7	
L-Phenylalanine	9.92	0.06012	Hypoxanthine	4	0.03053	
L-Proline	69	0.6	Lipoic acid	0.21	0.001019	
L-Serine	21	0.2	Phenol Red	3	0.007970	
L-Threonine	23	0.1933	Putrescine 2HCI	0.32	0.001987	
L-Tryptophan	4.1	0.02010	Sodium pyruvate	220	2.0	
L-Tyrosine disodium salt	13.5	0.05153	Thymidine	0.7	0.002892	
L-Valine	23	0.1966				
Vitamins						
Biotin	0.0073	0.0000299				
Choline chloride	14	0.1				
D-Calcium pantothenate	0.50	0.001048				
Folic Acid	1.30	0.002948				
Niacinamide	0.04	0.000295				
Pyridoxine hydrochloride	0.06	0.000291				
Riboflavin	0.04	0.000098				
Thiamine hydrochloride	0.30	0.000890				
Vitamin B12	1.40	0.001033				

18

0.1

i-Inositol

Ham's F-12K medium, no L-Glutamine Formula



Servicebio® Ham's F-12K, no phenol red

Cat. No.: G4591-500ML

Product Information

Product Name	Cat. No.	Spec.
Ham's F-12K, no phenol red	G4591-500ML	500 mL

Product Description/Introduction

Ham's F-12K medium is a Kaighn's modification of Ham's F-12 nutrient mixture, originally designed for culturing primary human hepatocytes and differentiated rat and chicken cells under low serum conditions.Ham's F -12K increases the concentration of amino acids and sodium pyruvate, decreases the glucose content, and modifies the composition and content of inorganic salts from the original Ham's F-12. Compared with other culture media, Ham's F-12K contains many unique ingredients such as putrescine, thymine, hypoxanthine, zinc, etc., in addition to a higher content of sodium pyruvate.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 7.0 mM D-Glucose, L-AlanyI-L-Glutamine and 2.0 mM sodium pyruvate, no phenol red indicator, no HEPES buffer system.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Conce	ntration	Components	Conce	ntration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	15.0	0.2	Potassium Chloride (KCl)	285.0	3.800
L-Alanine	18.0	0.2022	Sodium Bicarbonate (NaHCO ₃)	2500.0	29.76
L-Arginine	422.0	2.0	Sodium Chloride (NaCl)	7530.0	129.9
hydrochloride					
L -Asparagine- H_2O	30.0	0.2	Dibasic sodium phosphate (Na₂HPO₄) (anhyd.)	115.5	0.813
			Sodium dihydrogen phosphate (NaH₂PO₄) (anhyd.)	59.0	0.492
L-Aspartic Acid	26.6	0.2	Calcium Chloride (CaCl ₂)(anhyd.)	102.0	0.9189
L-Cysteine hydrochloride-H ₂ O	70.0	0.3977	Copper Sulfate Pentahydrate (CuSO ₄ ·5H ₂ O)	0.002	0.000008
L-Glutamic Acid	29.0	0.1973	Iron Sulfate Heptahydrate	0.8	0.002878
L-Alanyl-L-Glutamine	434.4	2.0	Magnesium Chloride (MgCl ₂)(anhyd.)	49.7	0.5231
			Magnesium Sulfate (MgSO₄)(anhyd.)	192.0	1.6
L-Histidine-H ₂ O hydrochloride-H ₂ O	45.8	0.2181	Zinc Sulfate Heptahydrate (ZnSO4 [.] 7H2O)	0.144	0.0005
L-Isoleucine	7.88	0.06015	Other components		
L-Leucine	26.2	0.2	D-Glucose (Dextrose)	1260.0	7.0
L-Lysine hydrochloride	73.0	0.3989	Phenol red	-	-
L-Methionine	8.96	0.06013	Sodium pyruvate	220	2.0
L-Phenylalanine	9.92	0.06012	Hypoxanthine	4.083	0.03
L-Proline	69.0	0.6	Alphalipoic Acid	0.210	0.00102
L-Serine	21.0	0.2	Diaminobutane dihvdrochloride	0.32	0.001987
L-Threonine	23.0	0.1933	Thymidine	0.701	0.00289
L-Tryptophan	4.1	0.02010			
L-Tyrosine Disodium Salt	13.5	0.05153			
L-Valine	23.0	0.1966			

G4591 Ham's F-12K Formula

L-Valine	23.0	0.1966
Vitamins		
Biotin	0.0073	0.0000299
Choline chloride	14	0.1

D-Calcium	0.50	0.001048
pantothenate		
Folic Acid	1.30	0.002948
Niacinamide	0.04	0.000295
Pyridoxine	0.06	0.000291
hydrochloride		
Riboflavin	0.04	0.000098
Thiamine	0.30	0.000890
hydrochloride		
Vitamin B12	1.40	0.001033
i-Inositol	18	0.1



Servicebio® DMEM/F-12, GlutaPlus, no HEPES

Cat. No.: G4610-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM/F-12, GlutaPlus, no HEPES	G4610-500ML	500 mL

Product Description/Introduction

DMEM/F-12 medium was modified by mixing DMEM with Ham's F-12 medium at a ratio of 1:1. The modified DMEM/F-12 medium is richer in nutrients and contains more micronutrients, which is a widely used basal medium for supporting the growth of many different mammalian cells, as well as for the culture of mammalian cells at low serum levels and for clonal density culture. DMEM/F-12 has also been used as a base medium for the development of serum-free medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 17.5 mM D-glucose, 2.5 mM L-AlanyI-L-Glutamine, 0.5 mM sodium pyruvate, phenol red indicator, no HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.


Components	Cond	Concentration Components		Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	18.75	0.250	Calcium Chloride (CaCl2)(anhyd.)	116.6	1.050
L-Alanine	4.45	0.050	Cupric Sulfate (CuSO₄·5H₂O)	0.0013	0.0000052
L-Arginine monohydrochloride	147.5	0.699	Ferric Nitrate (Fe(NO ₃) ₃ ·9H ₂ O)	0.05	0.0001238
L-Asparagine monohydrate	7.5	0.050	Ferrous Sulfate (FeSO ₄ ·7H ₂ O)	0.417	0.0015
L-Asparagine	6.65	0.050	Magnesium chloride (MgCl ₂)(anhyd.)	28.64	0.301
L-Cysteine hydrochloride hydrate	17.56	0.100	Magnesium sulfate (MgSO₄) (anhyd.)	48.84	0.407
L-Cystine dihydrochloride	31.29	0.100	Potassium Chloride (KCl)	311.8	4.157
L-Glutamic acid	7.35	0.050	Sodium bicarbonate(NaHCO ₃)	2438	29.02
L-Alanyl-L-Glutamine	543.0	2.500	Sodium chloride (NaCl)	6995.5	120.6
L-Histidine hydrochloride monohydrate	31.48	0.150	Disodium (hydrogen) phosphate(Na₂HPO₄)(anhyd.)	71.02	0.500
L-Isoleucine	54.47	0.416	Sodium dihydrogen phosphate(NaH₂PO₄)(anhyd.)	54.34	0.453
L-Leucine	59.05	0.451	Zinc Sulfate(ZnSO₄·7H₂O)	0.432	0.0015
L-Lysine hydrochloride	91.25	0.499	Other components		
L-Methionine	17.24	0.116	D-Glucose (Dextrose)	3151	17.51
L-Phenylalanine	35.48	0.215	Hypoxanthine Na	2.39	0.015
L-Proline	17.25	0.150	Linoleic Acid	0.042	0.00015
L-Serine	26.25	0.250	Lipoic acid	0.105	0.00051
L-Threonine	53.45	0.449	Phenol Red	8.1	0.022
L-Tryptophan	9.02	0.044	Putrescine dihydrochloride	0.081	0.00050
L-Tyrosine disodium salt	55.79	0.214	Thymidine	0.365	0.00151
L-Valine	52.85	0.452	Sodium pyruvate	55	0.500
Vitamins			HEPES	_	-
Biotin	0.0035	0.0000143			
Choline chloride	8.98	0.06414			
D-Calcium pantothenate	2.24	0.00470			
Folic Acid	2.65	0.00601			
Niacinamide	2.02	0.01656			
Pyridoxine hydrochloride	2.013	0.00977			
Riboflavin	0.219	0.00058			

Thiamine hydrochloride

Vitamin B12

i-Inositol

2.17

0.68

12.6

0.00644

0.00050

0.07

G4610 DMEM/F-12 Formula



Servicebio® DMEM/F-12, no L-Glutamine, no HEPES

Cat #: G4611-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM/F-12, no L-Glutamine, no HEPES	G4611-500ML	500 mL

Product Description/Introduction

DMEM/F-12 medium was modified by mixing DMEM with Ham's F-12 medium at a ratio of 1:1. The modified DMEM/F-12 medium is richer in nutrients and contains more micronutrients, which is a widely used basal medium for supporting the growth of many different mammalian cells, as well as for the culture of mammalian cells at low serum levels and for clonal density culture. DMEM/F-12 has also been used as a base medium for the development of serum-free media.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is sterilized by 0.1μ m filter membrane, pH 7.0-7.4, contains 17.5 mM D-glucose, 0.5 mM sodium pyruvate, phenol red indicator, no L-glutamine and HEPES buffer system. Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



DMEM/F-12 Medium

Components	Conce	entration	Components	Cond	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	18.75	0.250	Calcium Chloride (CaCl₂)(anhyd.)	116.6	1.050
L-Alanine	4.45	0.050	Cupric Sulfate (CuSO₄·5H₂O)	0.0013	0.0000052
L-Arginine monohydrochloride	147.5	0.699	Ferric Nitrate (Fe(NO ₃) ₃ ·9H ₂ O)	0.05	0.0001238
L-Asparagine monohydrate	7.5	0.050	Ferrous Sulfate (FeSO ₄ ·7H ₂ O)	0.417	0.0015
L-Asparagine	6.65	0.050	Magnesium chloride (MgCl₂)(anhyd.)	28.64	0.301
L-Cysteine hydrochloride hydrate	17.56	0.100	Magnesium sulfate (MgSO₄) (anhyd.)	48.84	0.407
L-Cystine dihydrochloride	31.29	0.100	Potassium Chloride (KCl)	311.8	4.157
L-Glutamic acid	7.35	0.050	Sodium bicarbonate(NaHCO3)	2438	29.024
L-Glutamine	-	_	Sodium chloride (NaCl)	6995.5	120.6
L-Histidine hydrochloride monohydrate	31.48	0.150	Disodium (hydrogen) phosphate(Na₂HPO₄)(anhyd.)	71.02	0.500
L-Isoleucine	54.47	0.416	Sodium dihydrogen phosphate(NaH₂PO₄)(anhyd.)	54.34	0.453
L-Leucine	59.05	0.451	Zinc Sulfate(ZnSO₄·7H₂O)	0.432	0.0015
L-Lysinehydrochloride	91.25	0.499	Other components		
L-Methionine	17.24	0.116	D-Glucose (Dextrose)	3151	17.51
L-Phenylalanine	35.48	0.215	Hypoxanthine Na	2.39	0.015
L-Proline	17.25	0.150	Linoleic Acid	0.042	0.00015
L-Serine	26.25	0.250	Lipoic acid	0.105	0.00051
L-Threonine	53.45	0.449	Phenol Red	8.1	0.022
L-Tryptophan	9.02	0.044	Putrescine dihydrochloride	0.081	0.00050
L-Tyrosine disodium salt	55.79	0.214	Thymidine	0.365	0.00151
L-Valine	52.85	0.452	Sodium pyruvate	55	0.500
Vitamins			HEPES	_	-
Biotin	0.0035	0.0000143			
Choline chloride	8.98	0.0641			
D-Calcium pantothenate	2.24	0.0047			
Folic Acid	2.65	0.0060			
Niacinamide	2.02	0.0166			
Pyridoxine hydrochloride	2.013	0.0098			
Riboflavin	0.219	0.0006			
Thiamine hydrochloride	2.17	0.0064			
Vitamin B12	0.68	0.0005			
i-Inositol	12.6	0.07			



Servicebio® DMEM/F-12, GlutaPlus, HEPES

Cat. No.: G4612-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM/F-12, GlutaPlus, HEPES	G4612-500ML	500 mL

Product Description/Introduction

DMEM/F-12 medium was modified by mixing DMEM with Ham's F-12 medium at a ratio of 1:1. The modified DMEM/F-12 medium is richer in nutrients and contains more micronutrients, which is a widely used basal medium for supporting the growth of many different mammalian cells, as well as for the culture of mammalian cells at low serum levels and for clonal density culture. DMEM/F-12 has also been used as a base medium for the development of serum-free media.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 17.5 mM D-glucose, 2.5 mM L-Alanyl-L-Glutamine, 0.5 mM sodium pyruvate, phenol red indicator and HEPES buffer system.

HEPES is a commonly used biological buffering agent, which can keep the medium at a constant pH range for a long time and effectively prevent the adverse effects of large pH fluctuations on cell growth.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



G4612 DMEM/F-12 Formula

Components	Cond	entration	Components	Conc	Concentration	
	mg/L	mM		mg/L	mM	
Amino acids			Inorganic salts			
Glycine	18.75	0.250	Calcium Chloride (CaCl ₂)(anhyd.)	116.6	1.050	
L-Alanine	4.45	0.050	Cupric Sulfate (CuSO₄·5H₂O)	0.0013	0.0000052	
L-Arginine monohydrochloride	147.5	0.699	Ferric Nitrate (Fe(NO ₃) ₃ ·9H ₂ O)	0.05	0.0001238	
L-Asparagine monohydrate	7.5	0.050	Ferrous Sulfate (FeSO ₄ ·7H ₂ O)	0.417	0.0015	
L-Asparagine	6.65	0.050	Magnesium chloride (MgCl ₂)(anhyd.)	28.64	0.301	
L-Cysteine hydrochloride hydrate	17.56	0.100	Magnesium sulfate (MgSO₄) (anhyd.)	48.84	0.407	
L-Cystine dihydrochloride	31.29	0.100	Potassium Chloride (KCl)	311.8	4.157	
L-Glutamic acid	7.35	0.050	Sodium bicarbonate(NaHCO ₃)	1200	14.27	
L-Alanyl-L-Glutamine	543.0	2.500	Sodium chloride (NaCl)	6995.5	120.6	
L-Histidine hydrochloride monohydrate	31.48	0.150	Disodium (hydrogen) phosphate(Na₂HPO₄)(anhyd.)	71.02	0.500	
L-Isoleucine	54.47	0.416	Sodium dihydrogen phosphate(NaH,PO₄)(anhyd.)	54.34	0.453	
L-Leucine	59.05	0.451	Zinc Sulfate(ZnSO ₄ ·7H ₂ O)	0.432	0.0015	
L-Lysine hydrochloride	91.25	0.499	Other components			
L-Methionine	17.24	0.116	D-Glucose (Dextrose)	3151	17.51	
L-Phenylalanine	35.48	0.215	Hypoxanthine Na	2.39	0.015	
L-Proline	17.25	0.150	Linoleic Acid	0.042	0.00015	
L-Serine	26.25	0.250	Lipoic acid	0.105	0.00051	
L-Threonine	53.45	0.449	Phenol Red	8.1	0.022	
L-Tryptophan	9.02	0.044	Putrescine dihydrochloride	0.081	0.00050	
L-Tyrosine disodium salt dihydrate	55.79	0.214	Thymidine	0.365	0.00151	
L-Valine	52.85	0.452	Sodium pyruvate	55	0.500	
Vitamins			HEPES	3574.5	15.0	
Biotin	0.0035	0.0000143				
Choline chloride	8.98	0.0641				
D-Calcium pantothenate	2.24	0.0047				
Folic Acid	2.65	0.0060				
Niacinamide	2.02	0.0166				
Pyridoxine hydrochloride	2.013	0.0098				
Riboflavin	0.219	0.0006				
Thiamine hydrochloride	2.17	0.0064				
Vitamin B12	0.68	0.0005				
i-Inositol	12.6	0.07				



Servicebio® DMEM/F-12, HEPES, no L-Glutamine

Cat #: G4613-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM/F-12, HEPES, no L-Glutamine	G4613-500ML	500 mL

Product Description/Introduction

DMEM/F-12 medium was modified by mixing DMEM with Ham's F-12 medium at a ratio of 1:1. The modified DMEM/F-12 medium is richer in nutrients and contains more micronutrients, which is a widely used basal medium for supporting the growth of many different mammalian cells, as well as for the culture of mammalian cells at low serum levels and for clonal density culture. DMEM/F-12 has also been used as a base medium for the development of serum-free media.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 17.5 mM D-glucose, 0.5 mM sodium pyruvate, phenol red indicator, 15 mM HEPES buffer system, no L-glutamine.

HEPES is a commonly used biological buffering agent, which can keep the medium at a constant pH range for a long time and effectively prevent the adverse effects of large pH fluctuations on cell growth.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	18.75	0.250	Calcium Chloride (CaCl₂)(anhyd.)	116.6	1.050
L-Alanine	4.45	0.050	Cupric Sulfate (CuSO ₄ ·5H ₂ O)	0.0013	0.0000052
L-Arginine monohydrochloride	147.5	0.699	Ferric Nitrate (Fe(NO ₃) ₃ ·9H ₂ O)	0.05	0.0001238
L-Asparagine monohydrate	7.5	0.050	Ferrous Sulfate (FeSO ₄ ·7H ₂ O)	0.417	0.0015
L-Asparagine	6.65	0.050	Magnesium chloride (MgCl₂)(anhyd.)	28.64	0.301
L-Cysteine hydrochloride hydrate	17.56	0.100	Magnesium sulfate (MgSO₄) (anhyd.)	48.84	0.407
L-Cystine dihydrochloride	31.29	0.100	Potassium Chloride (KCl)	311.8	4.157
L-Glutamic acid	7.35	0.050	Sodium bicarbonate(NaHCO₃)	2438	29.024
L-Glutamine	-	-	Sodium chloride (NaCl)	6995.5	120.6
L-Histidine hydrochloride	01 40	0.150	Disodium (hydrogen)	71.00	0 5 0 0
monohydrate	31.48	0.150	phosphate(Na₂HPO₄)(anhyd.)	71.02	0.500
L-Isoleucine	E 4 4 7	0.416	Sodium dihydrogen	E 4 0 4	0.453
	54.47		phosphate(NaH₂PO₄)(anhyd.)	54.34	0.453
L-Leucine	59.05	0.451	Zinc Sulfate(ZnSO ₄ ·7H ₂ O)	0.432	0.0015
L-Lysinehydrochloride	91.25	0.499	Other components		
L-Methionine	17.24	0.116	D-Glucose (Dextrose)	3151	17.51
L-Phenylalanine	35.48	0.215	Hypoxanthine Na	2.39	0.015
L-Proline	17.25	0.150	Linoleic Acid	0.042	0.00015
L-Serine	26.25	0.250	Lipoic acid	0.105	0.00051
L-Threonine	53.45	0.449	Phenol Red	8.1	0.022
L-Tryptophan	9.02	0.044	Putrescine dihydrochloride	0.081	0.00050
L-Tyrosine disodium salt	55.79	0.214	Thymidine	0.365	0.00151
L-Valine	52.85	0.452	Sodium pyruvate	55	0.500
Vitamins			HEPES	3574.5	15.0
Biotin	0.0035	0.0000143			
Choline chloride	8.98	0.0641			
D-Calcium pantothenate	2.24	0.0047			
Folic Acid	2.65	0.0060			
Niacinamide	2.02	0.0166			
Pyridoxine hydrochloride	2.013	0.0098			
Riboflavin	0.219	0.0006			

Thiamine hydrochloride

Vitamin B12

i-Inositol

2.17

0.68

12.6

0.0064

0.0005

0.07

DMEM/F-12 medium, HEPES, no L -Glutamine



Servicebio® DMEM/F-12, GlutaPlus, no HEPES, no phenol red

Cat. No.: G4615-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM/F-12, GlutaPlus, no HEPES, no phenol red	G4615	500 mL

Product Description/Introduction

DMEM/F-12 medium was modified by mixing DMEM with Ham's F-12 medium at a ratio of 1:1. The modified DMEM/F-12 medium is richer in nutrients and contains more micronutrients, which is a widely used basal medium for supporting the growth of many different mammalian cells, as well as for the culture of mammalian cells at low serum levels and for clonal density culture. DMEM/F-12 has also been used as a base medium for the development of serum-free medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is sterilized by 0.1 µm filter membrane, pH 7.0-7.4, contains 17.5 mM D-glucose, 2.5 mM L-AlanyI-L-Glutamine, 0.5 mM sodium pyruvate, no phenol red indicator, no HEPES.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	18.75	0.250	Calcium Chloride (CaCl ₂)(anhyd.)	116.6	1.050
L-Alanine	4.45	0.050	Cupric Sulfate (CuSO ₄ ·5H ₂ O)	0.0013	0.0000052
L-Arginine monohydrochloride	147.5	0.699	Ferric Nitrate (Fe(NO ₃) ₃ ·9H ₂ O)	0.05	0.0001238
L-Asparagine monohydrate	7.5	0.050	Ferrous Sulfate (FeSO ₄ ·7H ₂ O)	0.417	0.0015
L-Asparagine	6.65	0.050	Magnesium chloride (MgCl ₂)(anhyd.)	28.64	0.301
L-Cysteine hydrochloride hydrate	17.56	0.100	Magnesium sulfate (MgSO₄) (anhyd.)	48.84	0.407
L-Cystine dihydrochloride	31.29	0.100	Potassium Chloride (KCl)	311.8	4.157
L-Glutamic acid	7.35	0.050	Sodium bicarbonate(NaHCO₃)	2438	29.02
L-Alanyl-L-Glutamine	543.0	2.500	Sodium chloride (NaCl)	6995.5	120.6
L-Histidine hydrochloride monohydrate	31.48	0.150	Disodium (hydrogen) phosphate(Na₂HPO₄)(anhyd.)	71.02	0.500
L-Isoleucine	54.47	0.416	Sodium dihydrogen phosphate(NaH₂PO₄)(anhyd.)	54.34	0.453
L-Leucine	59.05	0.451	Zinc Sulfate(ZnSO ₄ ·7H ₂ O)	0.432	0.0015
L-Lysine hydrochloride	91.25	0.499	Other components		
L-Methionine	17.24	0.116	D-Glucose (Dextrose)	3151	17.51
L-Phenylalanine	35.48	0.215	Hypoxanthine Na	2.39	0.015
L-Proline	17.25	0.150	Linoleic Acid	0.042	0.00015
L-Serine	26.25	0.250	Lipoic acid	0.105	0.00051
L-Threonine	53.45	0.449	Phenol Red	_	-
L-Tryptophan	9.02	0.044	Putrescine dihydrochloride	0.081	0.00050
L-Tyrosine disodium salt	55.79	0.214	Thymidine	0.365	0.00151
L-Valine	52.85	0.452	Sodium pyruvate	55	0.500
Vitamins			HEPES	-	-
Biotin	0.0035	0.0000143			
Choline chloride	8.98	0.06414			
D-Calcium pantothenate	2.24	0.00470			
Folic Acid	2.65	0.00601			
Niacinamide	2.02	0.01656			
Pyridoxine hydrochloride	2.013	0.00977			
Riboflavin	0.219	0.00058			

G4615 DMEM/F-12 Formula

Thiamine hydrochloride

Vitamin B12

i-Inositol

2.17

0.68

12.6

0.00644

0.00050

0.07



Servicebio[®] McCoy's 5A (modified) medium, GlutaPlus, no HEPES

Cat. No.: G4540

Product Content

Name	Cat No.	Size
McCoy's 5A (modified) medium, GlutaPlus, no HEPES	G4540-500ML	500 mL

Product Description

Dr. Thomas McCoy originally formulated McCoy's 5A medium as a modification of Basal Medium 5A. Different from other media, McCoy's 5A contains the reducing glutathione, bacto-peptone, a high level of glucose, and also includes Hanks's salts to enable use outside a CO₂ incubator. McCoy's 5A medium modified generally supports the propagation of many types of primary mammalian cells derived from normal bone marrow, skin, spleen, kidney, lung rat embryos and other tissues. It can also be used for growth of established cell lines and explants from biopsy tissues.

McCoy's 5A medium modified contains no proteins, lipids, or growth factors. Therefore, McCoy's 5A medium modified requires supplementation, commonly with 10% Fetal Bovine Serum (FBS). McCoy's 5A medium modified uses a sodium bicarbonate buffer system (2.2 g/L) and therefore requires a 5 - 10% CO₂ environment to maintain physiological pH.

All raw material components used for Servicebio cell culture media products are screened through using strict quality control testing. Servicebio cell culture media are manufactured at a cGMP-compliant facility using water for injection, filtered through final 0.1 µm sterile filtration and aseptic filled in a Hundred-stage FFU. The filter integrity tests are performed before and after filtration. Each lot of cell culture media are subjected to sterility test, pH, osmolality, endotoxin and cell culture test.

The major character of this McCoy's 5A medium modified is as follows:

- With 16.67 mM Glucose, 1.5 mM L-glutamine, phenol red.
- Without sodium pyruvate and HEPES.

The complete formulation is available.

Storage

Storage conditions: 2°C to 8°C, protect from light Shipping conditions: Ambient Shelf life: 12 months from date of manufacture



Componente	Conce	ntration	Componente	Concentration		
components —	mg/L	mM	components	mg/L	mM	
Amino acids			Thiamine hydrochloride	0.20	0.0005934 72	
Glycine	7.5	0.1000	Vitamin B12	2.00	0.0014760 15	
L-Alanine	13.9	0.156	i-Inositol	36.0	0.2000	
L-Arginine hydrochloride	42.1	0.1995	Inorganic salts			
L-Asparagine monohydrate	51.14	0.3409	Calcium Chloride (CaCl₂)(anhyd.)	100	0.901	
L-Asparagine	19.97	0.1502	Magnesium sulfate(MgSO₄)(anhyd.)	200	0.813	
L-Cysteine hydrochloride hydrate	31.5	0.2603	Potassium Chloride (KCI)	400	5.333	
L-Glutamic acid	22.1	0.1503	Sodium bicarbonate(NaHCO ₃)	2200	26.190	
L-Glutamine	219.2	1.5014	Sodium chloride (NaCl)	6460	111.4	
L-Histidine hydrochloride monohydrate	20.96	0.0998	Sodium Phosphate monobasic(NaH₂PO₄)(anhyd.)	504	4.203	
L-Isoleucine	19.7	0.1504	Other components			
L-Leucine	39.36	0.3005	Peptone	600	Infinity	
L-Lysinehydrochloride	39.36	0.3005	D-Glucose (Dextrose)	3000	16.67	
L-Lysine Hydrochloride	36.5	0.1995	Reduced glutathione	0.5	0.0016	
L-Methionine	14.9	0.1000	Phenol Red	9.4	0.0266	
L-Phenylalanine	16.5	0.1000	HEPES	-	_	
L-Proline	17.3	0.1504				
L-Serine	26.3	0.2505				
L-Threonine	17.9	0.1504				
L-Tryptophan	3.06	0.0152				
L-Tyrosine disodium salt	26.1	0.1000				
L-Valine	17.6	0.1504				
Vitamins						
L-Ascorbic acid	0.50	0.00284090 9				
Biotin	0.20	0.00081967 2				
Choline chloride	5.00	0.03571428 7				

G4540 McCoy's 5A, Modified



D-Calcium	0.20	0.00041928
pantothenate	0.20	7
	10.00	0.02267573
FOIIC ACIO	10.00	8
Niacinamide	0.50	0.00409836
Nigotinia agid	0.50	0.00406504
NICOLINIC ACIO	0.50	1
Para-Aminobenzoic	1.00	0 0070007
Acid	1.00	0.00729927
Pyridoxal	0.50	0.00245098
hydrochloride	0.50	1
Pyridoxine	0.50	0.00242718
hydrochloride	0.50	5
Dihadlaria	0.00	0.00053191
RIDONAVIN	0.20	5



Servicebio® McCoy's 5A (modified) medium, GlutaPlus, HEPES

Cat. No.: G4541-500ML

Product Information

Product Name	Cat. No.	Spec.
McCoy's 5A (modified) medium, GlutaPlus, HEPES	G4541-500ML	500 mL

Product Description

McCoy's 5A (modified) is a general purpose medium that supports the propagation of many types of primary cells, established cell lines, and explants from biopsy tissues. This medium will support the growth of primary mammalian cells derived from normal bone marrow, skin, spleen, kidney, lung, rat embryos, and other tissues. McCoy's 5A modified contains a high concentration of D-glucose, bacterial peptone and reduced glutathione compared to other medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains 16.67 mM D-glucose, 1.5 mM L-Alanyl-L-Glutamine, 25 mM HEPES buffer system, phenol red indicator, no sodium pyruvate.

HEPES is an excellent biological buffering agent with no toxic effect on cells, and the medium supplemented with HEPES can maintain a constant pH range for a long time.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Concentration

Components	Concentration	
	mg/L	mM
Amino acids		
Glycine	7.5	0.1000
L-Alanine	13.9	0.156
L-Arginine hydrochloride	42.1	0.1995
L-Asparagine monohydrate	51.14	0.3409
L-Asparagine	19.97	0.1502
L-Cysteine hydrochloride hydrate	31.5	0.2603
L-Glutamic acid	22.1	0.1503
L-Alanyl-L-Glutamine	326.1	1.5014
L-Histidine hydrochloride monohydrate	20.96	0.0998
L-Isoleucine	19.7	0.1504
L-Leucine	39.36	0.3005
L-Lysinehydrochloride	39.36	0.3005
L-Lysine Hydrochloride	36.5	0.1995
L-Methionine	14.9	0.1000
L-Phenylalanine	16.5	0.1000
L-Proline	17.3	0.1504
L-Serine	26.3	0.2505
L-Threonine	17.9	0.1504
L-Tryptophan	3.06	0.0152
L-Tyrosine disodium salt	26.1	0.1000
L-Valine	17.6	0.1504
Vitamins		
L-Ascorbic acid	0.50	0.00284090 9
Biotin	0.20	0.00081967 2
Choline chloride	5.00	0.03571428 7
D-Calcium pantothenate	0.20	0.00041928 7
Folic Acid	10.00	0.02267573 8
Niacinamide	0.50	0.00409836
Nicotinic acid	0.50	0.00406504 1
Para-Aminobenzoic Acid	1.00	0.00729927

G4541 McCoy's 5A, modified, HEPES

Components

	mg/L	mM
Thiamine hydrochloride	0.20	0.000593472
Vitamin B12	2.00	0.001476015
i-Inositol	36.0	0.2000
Inorganic salts		
Calcium Chloride (CaCl2)(anhyd.)	100	0.901
Magnesium sulfate(MgSO4)(anhyd.)	200	0.813
Potassium Chloride (KCl)	400	5.333
Sodium bicarbonate(NaHCO ₃)	2200	26.190
Sodium chloride (NaCl)	5100	87.931
Sodium Phosphate	504	1 203
monobasic(NaH ₂ PO ₄)(anhyd.)	504	4.205
Other components		
Peptone	600	Infinity
D-Glucose (Dextrose)	3000	16.67
Reduced glutathione	0.5	0.0016
Phenol Red	9.4	0.0266
HEPES	5958	25



Duridoval budrophlarida		0.00245098
Pyhuoxai hyurochionue	0.50	1
Duridovina hydrochlarida	0.50	0.00242718
Pyhaoxine hydrochionae	0.50	5
Riboflavin	0.20	0.00053191
	0.20	5



Servicebio® DMEM, no glucose, no L-Glutamine, no HEPES, no Sodium Pyruvate

Cat #: G4528-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, no glucose, no L-Glutamine, no HEPES, no Sodium Pyruvate	G4528-500ML	500 mL

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells.. The DMEM medium was originally designed as low-glucose containing D-Glucose 1000 mg/L, and later developed as high-glucose containing D-Glucose 4500 mg/L. DMEM medium without D-glucose can be adjusted to suit the needs of the study.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is sterilized by 0.1µm filter membrane, pH 7.,0-7.4, contains phenol red indicator, no D-glucose,

L-glutamine, sodium pyruvate and HEPES buffer system.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



DMEM, no	Glucose	Formula
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Components	Concentration		
	mg/L	mM	
Amino acids			
Glycine	30	0.4	
L-Arginine hydrochloride	84	0.4	
L-Cystine dihydrochloride	62.6	0.2	
L-Histidine hydrochloride-H2O	42	0.2	
L-Isoleucine	105	0.80	
L-Leucine	105	0.80	
L-Lysine hydrochloride	146	0.8	
L-Methionine	30	0.2	
L-Phenylalanine	66	0.4	
L-Serine	42	0.4	
L-Threonine	95	0.8	
L-Tryptophan	16	80.0	
L-Tyrosine disodium salt dihydrate	e 103.79	0.4	
L-Valine	94	0.8	
L-Glutamine	-	-	
L-Alanyl-L-Glutamine	-	-	
Vitamins			
Choline chloride	4.0	0.0286	
D-Calcium pantothenate	4.0	0.0084	
Folic Acid	4.0	0.0091	
Niacinamide	4.0	0.0328	
Pyridoxine hydrochloride	4.0	0.0195	
Riboflavin	0.4	0.0011	
Thiamine hydrochloride	4.0	0.0119	
i-Inositol	7.2	0.0389	

Components	Concen	tration
	mg/L	mM
Inorganic salts		
Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O$)	0.1	0.0002
Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
Potassium Chloride (KCI)	400	5.36
Sodium Bicarbonate (NaHCO3)	3700	44.04
Sodium Chloride (NaCl)	4750	81.9
Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906
Other components		
D-Glucose (Dextrose)	-	-
Sodium pyruvate	-	-
HEPES	-	-
Phenol Red	14.95	0.0422



Servicebio® DMEM, no Glucose, no Phenol Red

Cat. No.: G4581-500ML

Product Information

Product Name	Cat. No.	Spec.
DMEM, no Glucose, no Phenol Red	G4581-500ML	500 mL

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. DMEM medium was initially designed with a low glucose type containing D-Glucose 1000 mg/L, and later developed into a high glucose type containing D-Glucose-free DMEM medium allows the glucose concentration to be adjusted at will according to the research needs.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 µm filter membrane, pH 7.0-7.4, without phenol red indicator. No D-glucose added, no L-glutamine and sodium pyruvate, no HEPES buffer system.

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



Components	Conce	entration	Components	Conce	entration
	mg/L	mM	_	mg/L	mľ
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl₂)(anhyd.) 200	1.80
L-Arginine	84	0.4	Ferric nitrate nonahydrate	0.1	0.0002
hydrochloride			(Fe(NO ₃) ₃ •9H ₂ O)		
L-Cystine	62.6	0.2	Magnesium Sulfate (MgSO ₄)	97.67	0.80
dihydrochloride			(anhyd.)		
L-Histidine	42	0.2	Potassium Chloride (KCI)	400	5.36
hydrochloride-H2O					
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO ₃)	3700	44.04
L-Leucine	105	0.8	Sodium Chloride (NaCl)	6400	109.50
L-Lysine	146	0.8	Sodium Phosphate monobasic	108.7	0.906
hydrochloride			(NaH ₂ PO ₄) (anhyd.)		
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	-	_
L-Serine	42	0.4	Sodium pyruvate	-	-
L-Threonine	95	0.8	HEPES	-	_
L-Tryptophan	16	0.08	Phenol Red	-	-
L-Tyrosine disodium	103.79	0.4			
salt dihydrate					
L-Valine	94	0.8			
L-Glutamine	-	-			
L-Alanyl-L-Glutamine	-	-			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium	4.0	0.0084			
pantothenate					
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine	4.0	0.0195			
hydrochloride					
Riboflavin	0.4	0.0011			
Thiamine	4.0	0.0119			
hydrochloride					
i-Inositol	7.2	0.0389			

DMEM(no Glucose) Medium Formula



Servicebio® DMEM/no glucose, GlutaPlus, Sodium Pyruvate, no HEPES

Cat #: G4583-500ML

Product Information

Product Name	Cat. No.	Spec.	
DMEM/no glucose, GlutaPlus, Sodium Pyruvate, no HEPES	G4583-500ML	500 mL	

Product Description/Introduction

Dulbecco's Modified Eagle Medium (DMEM), is a modified medium based on MEM, is a widely used basal medium for supporting the growth of many different mammalian cells. The DMEM medium was originally designed as low-glucose containing D-Glucose 1000 mg/L, and later developed as high-glucose containing D-Glucose 4500 mg/L. DMEM medium without D-glucose can be adjusted to suit the needs of the study.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type.

The major character of this DMEM is as follows:

- Without glucose, HEPES
- With 4.0 mM L-alanyl-L-glutamine, 1.0 mM sodium pyruvate, phenol red.

The complete formulation is available..

Storage and Shipping Conditions

Ship at room temperature; Store at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves, or protective clothing.



DMEM, no	Glucose	Formula
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Components	Concentration			
	mg/L	mМ		
Amino acids				
Glycine	30	0.4		
L-Arginine hydrochloride	84	0.4		
L-Cystine dihydrochloride	62.6	0.2		
L-Histidine hydrochloride-H2O	42	0.2		
L-Isoleucine	105	0.80		
L-Leucine	105	0.80		
L-Lysine hydrochloride	146	0.8		
L-Methionine	30	0.2		
L-Phenylalanine	66	0.4		
L-Serine	42	0.4		
L-Threonine	95	0.8		
L-Tryptophan	16	80.0		
L-Tyrosine disodium salt dihydrate	e 103.79	0.4		
L-Valine	94	0.8		
L-Glutamine	-	-		
L-Alanyl-L-Glutamine	-	-		
Vitamins				
Choline chloride	4.0	0.0286		
D-Calcium pantothenate	4.0	0.0084		
Folic Acid	4.0	0.0091		
Niacinamide	4.0	0.0328		
Pyridoxine hydrochloride	4.0	0.0195		
Riboflavin	0.4	0.0011		
Thiamine hydrochloride	4.0	0.0119		
i-Inositol	7.2	0.0389		

Components	Concen	tration
	mg/L	mM
Inorganic salts		
Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O$)	0.1	0.0002
Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
Potassium Chloride (KCI)	400	5.36
Sodium Bicarbonate (NaHCO3)	3700	44.04
Sodium Chloride (NaCl)	4750	81.9
Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906
Other components		
D-Glucose (Dextrose)	-	-
Sodium pyruvate	-	-
HEPES	-	-
Phenol Red	14.95	0.0422

Servicebio[®] Leibovitz's L-15

Cat No. G4570

Product Content

Name	Cat No.	Size
Leibovitz's L-15	G4570-500ML	500 mL

Product Description

Leibovitz's L-15 Medium supports the growth of HEP-2 monkey kidney cells and primary explants of embryonic and adult human tissue. L-15 is buffered by phosphates and free base amino acids instead of sodium bicarbonate. This medium is designed for supporting cell growth in environments without CO_2 equilibration.

Leibovitz's L-15 Medium contains no proteins, lipids, or growth factors. Therefore, Leibovitz's L-15 Medium requires supplementation, commonly with 10% Fetal Bovine Serum (FBS).

All raw material components used for Servicebio cell culture media products are screened through using strict quality control testing. Servicebio cell culture media are manufactured at a cGMP-compliant facility using water for injection, filtered through final 0.1 µm sterile filtration and aseptic filled in a Hundred-stage FFU. The filter integrity tests are performed before and after filtration. Each lot of cell culture media are subjected to sterility test, pH, osmolality, endotoxin and cell culture test.

The major character of this Leibovitz's L-15 Medium is as follows:

- With 5.0 mM Galactose, 2.05 mM L-glutamine, 5.0 mM Sodium Pyruvate, with phenol red.
- Without Glucose, Sodium Bicarbonate and HEPES.

The complete formulation is available.

Storage

Storage conditions: 2°C to 8°C, protect from light Shipping conditions: Ambient Shelf life: 12 months from date of manufacture



Servicebio[®] DMEM, High Glucose, Powder, L-Alanyl-L-Glutamine, no phenol red

Cat. No.: G4509P

Product Information

Product Name	Cat. No.	Spec.
DMEM High Clusses pourder L Alapud L Clitamine no phonel red	G4509P-1L	1L
Diviem, High Glucose, powder, L-Alanyi-L-Giltamine, no priehor red	G4509P-10L	10L

Product Description/Introduction

This product is a powdered DMEM high-glucose medium containing 4 mM L-alanyl-L-glutamine with 1 mM sodium pyruvate, no phenol red indicator added, does not contain HEPES, additional sodium bicarbonate is required for use..

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	mponents Concentration Components		Conce	ntration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389

G4515 DMEM(High Glucose) Medium Formula



Servicebio[®] DMEM, High Glucose, Powder, L-Alanyl-L-Glutamine, no phenol red

Cat. No.: G4509P

Product Information

Product Name	Cat. No.	Spec.
DMEM High Clusses pourder L Alapud L Clitamine no phonel red	G4509P-1L	1L
Diviem, High Glucose, powder, L-Alanyi-L-Giltamine, no priehor red	G4509P-10L	10L

Product Description/Introduction

This product is a powdered DMEM high-glucose medium containing 4 mM L-alanyl-L-glutamine with 1 mM sodium pyruvate, no phenol red indicator added, does not contain HEPES, additional sodium bicarbonate is required for use..

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	mponents Concentration Components		Conce	ntration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389

G4515 DMEM(High Glucose) Medium Formula



Servicebio[®] DMEM, High Glucose, Powder

Cat. No.: G4511P

Product Information

Product Name	Cat. No.	Spec.
	G4511P-1L	1L
DMEM, High Glucose, powder	G4511P-10L	10L
	G4511P-50L	50L

Product Description/Introduction

This product is powder DMEM high glucose medium, containing 4 mM L-alanyl-L-glutamine, 1 mM sodium pyruvate, phenol red indicator, without HEPES, additional sodium bicarbonate is required for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	mponents Concentration Components		Conce	ntration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389

G4515 DMEM(High Glucose) Medium Formula



Servicebio[®] DMEM, High Glucose, Powder

Cat. No.: G4511P

Product Information

Product Name	Cat. No.	Spec.
	G4511P-1L	1L
DMEM, High Glucose, powder	G4511P-10L	10L
	G4511P-50L	50L

Product Description/Introduction

This product is powder DMEM high glucose medium, containing 4 mM L-alanyl-L-glutamine, 1 mM sodium pyruvate, phenol red indicator, without HEPES, additional sodium bicarbonate is required for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	mponents Concentration Components		Conce	ntration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

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G4515 DMEM(High Glucose) Medium Formula



Servicebio® RPMI-1640, Powder

Cat. No.: G4531P

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640, Powder	G4531P-1L	1L
	G4531P-10L	10L
	G4531P-50L	50L

Product Description/Introduction

This product is powder RPMI-1640 medium, containing 2.05 mM L-alanyl-L-glutamine, phenol red indicator, without sodium pyruvate, HEPES, additional sodium bicarbonate is required for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 2.0 g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concentration		Components		Concentration	
	mg/L	mM		mg/L	mM	
Amino acids			Inorganic salts			
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80	
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002	
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80	
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCI)	400	5.36	
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04	
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2	
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906	
L-Methionine	30	0.2	Other components			
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98	
L-Serine	42	0.4	Sodium pyruvate	110	1.0	
L-Threonine	95	0.8	HEPES	5958	25	
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422	
L-Tyrosine disodium salt	103.79	0.4				
dihydrate						
L-Valine	94	0.8				
L-Alanyl-L-Glutamine	868.9	4.0				
Vitamins						
Choline chloride	4.0	0.0286				
D-Calcium pantothenate	4.0	0.0084				
Folic Acid	4.0	0.0091				
Niacinamide	4.0	0.0328				
Pyridoxine hydrochloride	4.0	0.0195				
Riboflavin	0.4	0.0011				
Thiamine hydrochloride	4.0	0.0119				

i-Inositol

7.2

0.0389

G4515 DMEM(High Glucose) Medium Formula



Servicebio® RPMI-1640, Powder

Cat. No.: G4531P

Product Information

Product Name	Cat. No.	Spec.
	G4531P-1L	1L
RPMI-1640, Powder	G4531P-10L	10L
	G4531P-50L	50L

Product Description/Introduction

This product is powder RPMI-1640 medium, containing 2.05 mM L-alanyl-L-glutamine, phenol red indicator, without sodium pyruvate, HEPES, additional sodium bicarbonate is required for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 2.0 g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concentration		Components		Concentration	
	mg/L	mM		mg/L	mM	
Amino acids			Inorganic salts			
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80	
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002	
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80	
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCI)	400	5.36	
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04	
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2	
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906	
L-Methionine	30	0.2	Other components			
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98	
L-Serine	42	0.4	Sodium pyruvate	110	1.0	
L-Threonine	95	0.8	HEPES	5958	25	
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422	
L-Tyrosine disodium salt	103.79	0.4				
dihydrate						
L-Valine	94	0.8				
L-Alanyl-L-Glutamine	868.9	4.0				
Vitamins						
Choline chloride	4.0	0.0286				
D-Calcium pantothenate	4.0	0.0084				
Folic Acid	4.0	0.0091				
Niacinamide	4.0	0.0328				
Pyridoxine hydrochloride	4.0	0.0195				
Riboflavin	0.4	0.0011				
Thiamine hydrochloride	4.0	0.0119				

i-Inositol

7.2

0.0389

G4515 DMEM(High Glucose) Medium Formula

Servicebio[®] McCoy's 5A (modified) medium, powder

Main Cat. No.: G4540P

Product Information

Product Name	Cat. No.	Spec.
	G4540P-1L	1L
McCoy's 5A (modified) medium, powder	G4540P-10L	10 L
	G4540P-50L	50 L

Product Description

Dr. Thomas McCoy originally formulated McCoy's 5A medium as a modification of Basal Medium 5A. Different from other media, McCoy's 5A contains the reducing glutathione, bacto-peptone, a high level of glucose, and also includes Hanks's salts to enable use outside a CO2 incubator. McCoy's 5A medium modified generally supports the propagation of many types of primary mammalian cells derived from normal bone marrow, skin, spleen, kidney, lung rat embryos and other tissues. It can also be used for growth of established cell lines and explants from biopsy tissues.

This product is provided as powder, contains 16.67 mM D-glucose, 1.5 mM L-alanyl-L-glutamine, phenol red indicator, without sodium pyruvate, without HEPES. The powder forms of culture medium require sodium bicarbonate supplementation, pH adjustment, and filtration at the time of preparation (see protocols below for details).

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8 $^\circ\!\mathrm{C}$, valid for 36 months.

General guidelines

 Please use sterile solutions of 1 N NaOH or HCl prepared by membrane iltration using appropriate ilters.

- 2. Filter using a low protein binding ilter.
- 3. Keep the container with medium covered during stirring and iltration.
- Do not over-mix. Stop stirring when the product is completely dissolved.

Procotols of liquid media preparation from powder

1. To a mixing container that is as close to the final volume as possible, add 950 mL of distilled water.

2. Add McCoy's 5A (modified) medium, powder g to room temperature ($15^{\circ}C$ to $30^{\circ}C$) water (recommed WFI for cell culture or distilled water) with gentle stirring. Do not heat the water.

3. Rinse the inside of package to remove all traces of powder.

4. Add sodium bicarbonate (2.2 g/L) to the medium.

5. Adjust the pH to 0.2-0.3 units below the desires final working pH by slowly adding, with stirring, 1 N NaOH or 1 N HCl. The pH may rise 0.1 to 0.3 units upon filtration.

6. Adjust the final volume with distilled water.

7. Process the medium immediately into sterile containers by membrane filtration with a 0.2-µm filter using a positive pressure system.

For Research Use Only! Not for use in diagnostic procedures! Version: 1.0-202311

Servicebio[®] McCoy's 5A (modified) medium, powder

Main Cat. No.: G4540P

Product Information

Product Name	Cat. No.	Spec.
	G4540P-1L	1L
McCoy's 5A (modified) medium, powder	G4540P-10L	10 L
	G4540P-50L	50 L

Product Description

Dr. Thomas McCoy originally formulated McCoy's 5A medium as a modification of Basal Medium 5A. Different from other media, McCoy's 5A contains the reducing glutathione, bacto-peptone, a high level of glucose, and also includes Hanks's salts to enable use outside a CO2 incubator. McCoy's 5A medium modified generally supports the propagation of many types of primary mammalian cells derived from normal bone marrow, skin, spleen, kidney, lung rat embryos and other tissues. It can also be used for growth of established cell lines and explants from biopsy tissues.

This product is provided as powder, contains 16.67 mM D-glucose, 1.5 mM L-alanyl-L-glutamine, phenol red indicator, without sodium pyruvate, without HEPES. The powder forms of culture medium require sodium bicarbonate supplementation, pH adjustment, and filtration at the time of preparation (see protocols below for details).

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8 $^\circ\!\mathrm{C}$, valid for 36 months.

General guidelines

 Please use sterile solutions of 1 N NaOH or HCl prepared by membrane iltration using appropriate ilters.

- 2. Filter using a low protein binding ilter.
- 3. Keep the container with medium covered during stirring and iltration.
- Do not over-mix. Stop stirring when the product is completely dissolved.

Procotols of liquid media preparation from powder

1. To a mixing container that is as close to the final volume as possible, add 950 mL of distilled water.

2. Add McCoy's 5A (modified) medium, powder g to room temperature ($15^{\circ}C$ to $30^{\circ}C$) water (recommed WFI for cell culture or distilled water) with gentle stirring. Do not heat the water.

3. Rinse the inside of package to remove all traces of powder.

4. Add sodium bicarbonate (2.2 g/L) to the medium.

5. Adjust the pH to 0.2-0.3 units below the desires final working pH by slowly adding, with stirring, 1 N NaOH or 1 N HCl. The pH may rise 0.1 to 0.3 units upon filtration.

6. Adjust the final volume with distilled water.

7. Process the medium immediately into sterile containers by membrane filtration with a 0.2-µm filter using a positive pressure system.

For Research Use Only! Not for use in diagnostic procedures! Version: 1.0-202311


Servicebio[®] RPMI-1640, Powder, L-AlanyI-L-Glutamine, no phenol red

Cat. No.: G4542P

Product Information

Product Name	Cat. No.	Spec.
PDML 1640 Dourder L Aland L Clutaming no phonel red	G4542P-1L	1L
RPMI-1040, POwder, L-Alanyi-L-Glutamine, no prenorred	G4542P-10L	10L

Product Description/Introduction

This product is powdered RPMI-1640 medium containing 2.05 mM L-alanyl-L-glutamine, no phenol red indicator, no sodium pyruvate, no HEPES, additional sodium bicarbonate is required for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- 2. After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	s Concentration Components		Concentration		
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389



Servicebio[®] RPMI-1640, Powder, L-AlanyI-L-Glutamine, no phenol red

Cat. No.: G4542P

Product Information

Product Name	Cat. No.	Spec.
PDML 1640 Dourder L Aland L Clutaming no phonel red	G4542P-1L	1L
RPMI-1040, POwder, L-Alanyi-L-Glutamine, no prenorred	G4542P-10L	10L

Product Description/Introduction

This product is powdered RPMI-1640 medium containing 2.05 mM L-alanyl-L-glutamine, no phenol red indicator, no sodium pyruvate, no HEPES, additional sodium bicarbonate is required for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- 2. After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	s Concentration Components		Concentration		
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH $_2PO_4$) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389



Servicebio[®] Glasgow's MEM (GMEM), Powder

Cat. No.: G4558P

Product Information

Product Name	Cat. No.	Spec.
	G4558P-1L	1L
Glasgow's MEM (GMEM), powder	G4558P-10L	10L
	G4558P-50L	50L

Product Description/Introduction

This product is a powdered Glasgow's MEM (GMEM) medium containing 2.0 mM L-alanyl-L-glutamine with phenol red indicator, no sodium pyruvate, no HEPES, and additional sodium bicarbonate for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	s Concentration Components		Concentration		
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389



Servicebio[®] Glasgow's MEM (GMEM), Powder

Cat. No.: G4558P

Product Information

Product Name	Cat. No.	Spec.
	G4558P-1L	1L
Glasgow's MEM (GMEM), powder	G4558P-10L	10L
	G4558P-50L	50L

Product Description/Introduction

This product is a powdered Glasgow's MEM (GMEM) medium containing 2.0 mM L-alanyl-L-glutamine with phenol red indicator, no sodium pyruvate, no HEPES, and additional sodium bicarbonate for use.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 3 years.

Assay Protocol / Procedures

Preparation

- 1. Prepare clean container close to final volume.
- 2. Prepare distilled water at room temperature (15-30°C) or water for cell injection (recommended G4701).
- 3. Prepare 1 N NaOH and 1 N HCl.

Steps to prepare solution with dry powder

- 1. Fill the prepared clean container with 95% final volume of distilled water, take 1 bottle of this product (can prepare 1 L of culture medium) or weigh the powder according to the proportion and put it into the water to dissolve. Note that the powder can be quickly dissolved after disintegration in water, such as high-speed stirring may make the powder into a mass, the formation of water film on the surface, but not conducive to dissolution. Therefore, the powder into the water without high-speed stirring.
- After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7g/L and stir to dissolve. If you need to prepare other volumes, add sodium bicarbonate according to the corresponding volume.
- 3. Adjust pH to 0.2-0.3 units below working pH with 1 N NaOH and 1 N HCl (recommended working pH 7.0-7.4). The solution will increase in pH by 0.1-0.3 units after filtration.
- 4. Add water to fix the volume to the final volume. Keep the solution sealed before filtration.
- 5. Filtration into sterile containers using 0.2 µm membranes (note sterile handling).
- 6. After filtration, a little liquid can be taken for aseptic inspection and used after passing. The prepared liquid medium is stored at 2-8°C and valid for 1 years.

- 1. Dry powder is easy to absorb moisture, seal in time after use.
- 2. Take care to protect yourself when taking dry powder to prevent inhalation.
- 3. Keep the medium container covered during stirring and filtering, and stop stirring when the dry powder is dissolved.
- 4. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	s Concentration Components		Concentration		
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30	0.4	Calcium Chloride (CaCl ₂) (anhyd.)	200	1.80
L-Arginine hydrochloride	84	0.4	Ferric nitrate nonahydrate ($Fe(NO_3)_3 \bullet 9H_2O)$	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO4) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H2O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO3)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH2PO4) (anhyd.)	108.7	0.906
L-Methionine	30	0.2	Other components		
L-Phenylalanine	66	0.4	D-Glucose (Dextrose)	4500	24.98
L-Serine	42	0.4	Sodium pyruvate	110	1.0
L-Threonine	95	0.8	HEPES	5958	25
L-Tryptophan	16	0.08	Phenol Red	14.95	0.0422
L-Tyrosine disodium salt	103.79	0.4			
dihydrate					
L-Valine	94	0.8			
L-Alanyl-L-Glutamine	868.9	4.0			
Vitamins					
Choline chloride	4.0	0.0286			
D-Calcium pantothenate	4.0	0.0084			
Folic Acid	4.0	0.0091			
Niacinamide	4.0	0.0328			
Pyridoxine hydrochloride	4.0	0.0195			
Riboflavin	0.4	0.0011			
Thiamine hydrochloride	4.0	0.0119			

i-Inositol

7.2

0.0389



Servicebio® M199,GlutaPlus

Cat. No.: G4620-500ML

Product Information

Product Name	Cat. No.	Spec.
M199,GlutaPlus	G4620-500ML	500 mL

Product Description/Introduction

M199, known as Medium 199, was originally designed for the culture of chicken embryo fibroblasts and is now widely used for the culture of various animal cells, including non-mammalian cells. Compared to other basal medium, M199 contains a number of unique components, including adenine, adenosine, hypoxanthine, thymine and other vitamins. Different balanced salt solution can be used, for example Earle's Balanced Salts Solution for CO₂ environments and Hank's Balanced Salts Solution for non-CO₂ environments. M199 is especially suitable for the culture of non-transformed cells and is also commonly used for virology, rat pancreatic epithelial cells and mouse lens tissue.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Add 5-10% serum or serum-free additives depending on the cell type. This product is sterilized by 0.1µm filter membrane, pH 7.0-7.4, contains Earle's Balanced Salts Solution, 1000 mg/L D-glucose, L-alanyl-L-glutamine.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



G4620 M199 Formula

Components	Conc	entration	Components	Cond	entration
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	50.0	0.6667	Calcium Chloride (CaCl₂)(anhyd.)	200.0	1.802
L-Alanine	25.0	0.2809	Ferric Nitrate (Fe(NO ₃) ₃ ·9H ₂ O)	0.7	0.001733
L-Arginine hydrochloride	70.0	0.3318	Magnesium Sulfate (MgSO₄) (anhyd.)	97.7	0.8139
L-Asparagine acid	30.0	0.2256	Potassium Chloride (KCl)	400.0	5.333
L-Cysteine hydrochloride H ₂ O	0.10	0.0006	Sodium Bicarbonate(NaHCO₃)	2200.0	26.190
L-Cystine 2HCI	33.9	0.1083	Sodium chloride (NaCl)	6800.0	117.24
L-Glutamic acid	75.0	0.5102	Sodium dihydrogen phosphate(NaH₂PO₄)(anhyd.)	121.7	1.014
L-Alanyl-L-Glutamine	148.8	0.6849	Other components		
L-Histidine hydrochloride·H ₂ O	21.9	0.1042	D-Glucose (Dextrose)	1000.0	5.556
L-Hydroxyproline	10.0	0.0763	Phenol Red	18.83	0.053135
L-Isoleucine	40.0	0.3053	Cholesterol	0.20	0.00051680
L-Leucine	60.0	0.4580	Glutathione (reduced)	0.05	0.00016287
L-Lysine hydrochloride	70.0	0.3825	Sodium Acetate	50.0	0.60976
L-Methionine	15.0	0.1007	Tween 80	20	-
L-Phenylalanine	25.0	0.1515	Hypoxanthine Na	0.40	0.0029412
L-Proline	40.0	0.3478	2-deoxy-D-ribose	0.50	0.003731
L-Serine	25.0	0.2381	Adenine sulfate	5.772	0.024752
L-Threonine	30.0	0.2521	Adenosine 5'-phosphate	0.211	0.0005764
L-Tryptophan	10.0	0.0490	Adenosine 5'-triphosphate	0.911	0.0016529
L-Tyrosine disodium salt dihydrate	58.0	0.2222	Guanine hydrochloride	0.30	0.00159574
L-Valine	25.0	0.2137	Ribose	0.50	0.0033333
Vitamins			Thymine	0.30	0.0023810
Ascorbic Acid	0.050	0.0002841	Uracil	0.30	0.002679
Biotin	0.010	0.0000410	Xanthine-Na	0.34	0.002237
Choline chloride	0.50	0.003571			
D-Calcium pantothenate	0.010	0.0000210			
Folic Acid	0.010	0.0000227			
Menadione (Vitamin K3)	0.01606	0.00005814			
Niacinamide	0.0250	0.0002049			
Nicotinic Acid (Niacin)	0.0250	0.0002033			
Para-Aminobenzoic Acid	0.0500	0.0003650			
Pyridoxal hydrochloride	0.0250	0.0001225			
Pyridoxine hydrochloride	0.0250	0.0001214			
Riboflavin	0.0100	0.00002660			
Thiamine hydrochloride	0.0100	0.00002967			



Vitamin A (acetate)	0.100	0.00030488
Vitamin D2 (Calciferol)	0.100	0.00025189
Alpha Tocopherol phos. Na salt	0.010	0.0000180
I-Inositol	0.050	0.0002778



Servicebio® IMDM,GlutaPlus

Cat. No.: G4640-500ML

Product Information

Product Name	Cat. No.	Spec.
IMDM (Iscove's Modified Dulbecco's Medium), GlutaPlus	G4640-500ML	500 mL

Product Description/Introduction

IMDM, known as Iscove's Modified Dulbecco Medium, is Iscove's modified DMEM. It was originally designed for the culture of erythroid precursor cell and macrophages. Based on DMEM, IMDM is added with trace element selenium, additional amino acids and vitamins, potassium nitrate instead of iron nitrate, which is nutrient-rich, ideal for rapid proliferation and high-density cell culture, such as Mouse B Lymphocytes cell, LPS Stimulated B cell, Bone Marrow Hematopoietic Stem cell, T-lymphocyte and various hybridoma cells. In addition, IMEM is also used as a base fluid for a number of unique serum-free medium.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type. This product is filtered and sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains L-Alanyl-L-Glutamine, sodium pyruvate, phenol red indicator and HEPES. Please check the official website for the specific recipe.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

- 1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
- 2. For best results, do not freeze and thaw repeatedly.
- 3. For your safety and health, please wear safety glasses, gloves and protective clothing.



Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Inorganic salts		
Glycine	30.0	0.40	Calcium Chloride	165.0	1.4865
			(CaCl₂)(anhyd.)		
L-Alanine	25.0	0.2809	Magnesium Sulfate (MgSO ₄)	97.67	0.8139
			(anhyd.)		
L-Arginine	84.0	0.3981	Potassium Chloride (KCl)	330.0	4.40
hydrochloride					
L-Asparagine	25.0	0.1894	Potassium Nitrate (KNO ₃)	0.076	0.0007520
L-Aspartic Acid	30.0	0.2256	Sodium Bicarbonate (NaHCO ₃)	3024.0	36.0
L-Cystine 2HCl	91.4	0.2920	Sodium Chloride (NaCl)	4505.0	77.67
L-Glutamic Acid	75.0	0.5102	Sodium Phosphate monobasic (NaH,2PO4) (anhyd.)	108.7	0.9058
L-Alanyl-L-Glutamine	868.9	4.00	Sodium selenite (Na ₂ SeO ₃)	0.0170	0.0000983
L-Histidine	42.0	0.20	Other components		
hydrochloride-H ₂ O			·		
L-Isoleucine	105.0	0.8015	D-Glucose (Dextrose)	4500.0	25.0
L-Leucine	105.0	0.8015	HEPES	5958.0	25.03
L-Lysine	146.0	0.7978	Phenol red	14.107	0.0399
hydrochloride					
L-Methionine	30.0	0.2013	Sodium pyruvate	110.000	1.0
L-Phenylalanine	66.0	0.40			
L-Proline	40.0	0.3478			
L-Serine	42.0	0.40			
L-Threonine	95.0	0.7983			
L-Tryptophan	16.0	0.0784			
L-Tyrosine Disodium	104.0	0.4622			
Salt					
L-Valine	94.0	0.8034			
Vitamins					
Biotin	0.0130	0.00005330			
Choline chloride	4.0	0.02857			
D-Calcium	4.0	0.00839			
pantothenate					
Folic Acid	4.0	0.009070			
Niacinamide	4.0	0.032787			
Pyridoxine	4.0	0.019608			
hydrochloride					
Riboflavin	0.40	0.001064			
Thiamine	4.0	0.01187			
hydrochloride					
Vitamin B12	0.0130	0.00000959			

7.2

i-Inositol

0.040

По вопросам продаж и поддержки обращайтесь:

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