

DMEM, High Glucose, Powder

Cat. No.: G4511P

Product Information

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

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.
2. After the powder is dissolved, add sodium bicarbonate according to the dosage of 3.7 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.

Note

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.

Related Products

Cat. No.	Product Name
G4701	Pure water, laboratory use only
GC104004	Sodium bicarbonate
PET-500-YT-J	500 mL clear reagent bottle (sterile and enzyme-free with rounded shoulders)
PET-1000-YT-J	1000 mL clear reagent bottle (sterile and enzyme-free with rounded shoulders)
SF-PES-223301	Needle filter (0.2μm/PES/sterile)

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Ver. No.: V1.1-20260531

G4511P DMEM(High Glucose) Medium Formula

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 · 9H ₂ O)	0.1	0.0002
L-Cystine dihydrochloride	62.6	0.2	Magnesium Sulfate (MgSO ₄) (anhyd.)	97.67	0.80
L-Histidine hydrochloride-H ₂ O	42	0.2	Potassium Chloride (KCl)	400	5.36
L-Isoleucine	105	0.8	Sodium Bicarbonate (NaHCO ₃)	3700	44.04
L-Leucine	105	0.80	Sodium Chloride (NaCl)	4750	81.2
L-Lysine hydrochloride	146	0.8	Sodium Phosphate monobasic (NaH ₂ PO 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 dihydrate	103.79	0.4			
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			