

DMEM, High Glucose, GlutaPlus, no Phenol Red

Cat. No.: G4525

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 now widely used in various cell cultures. DMEM High Glucose Medium is commonly used for fast-growing cells with low adhesion. It can be used for the culture of many kinds of mammalian primary cells, such as primary fibroblasts, neuronal cells, glial cells, HUVEC, smooth muscle cells, etc. It can also be used for the culture of some 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.

Note

1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
2. Avoid freezing the culture medium. Freezing may cause precipitation and precipitation of nutrients, which may not be completely dissolved after rewarming, affecting the cell culture effect. In addition, when the medium is stored at 2-8°C, do not store it completely close to the inner wall of the refrigerator to prevent the medium from freezing due to localized low temperature.

3. Store away from light. This product is pale yellow to light amber in color. Photooxidation may cause partial oxidation of photosensitive amino acids, resulting in a slightly deeper yellow hue of the culture medium. Minor color changes do not affect its use. Do not use the product if significant yellow discoloration occurs.
4. For your safety and health, please wear safety glasses, gloves and protective clothing.

For Research Use Only!

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G4525 DMEM (High Glucose) Medium Formula

Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Vitamins		
Glycine	30	0.4	Choline chloride	4	0.0286
L-Arginine hydrochloride	84	0.4	D-Calcium pantothenate	4	0.0084
L-Cystine 2HCl	62.6	0.2	Folic Acid	4	0.0091
L-Histidine hydrochloride-H ₂ O	42	0.2	Niacinamide	4	0.0328
L-Isoleucine	105	0.8	Pyridoxine hydrochloride	4	0.0195
L-Leucine	105	0.8	Riboflavin	0.4	0.0011
L-Lysine hydrochloride	146	0.8	Thiamine hydrochloride	4	0.0119
L-Methionine	30	0.2	Meso-Inositol	7.2	0.0389
L-Phenylalanine	66	0.4	Inorganic salts		
L-Serine	42	0.4	Calcium Chloride (CaCl ₂)	200	1.8
L-Threonine	95	0.8	Ferric nitrate nonahydrate	0.1	0.0002
L-Tryptophan	16	0.08	Magnesium Sulfate	97.67	0.8
L-Tyrosine disodium salt	103.79	0.4	Potassium Chloride (KCl)	400	5.36
L-Valine	94	0.8	Sodium Bicarbonate	3700	44.04
L-Glutamine	-	-	Sodium Chloride (NaCl)	6400	109.5
L-Alanyl-L-Glutamine	869	4	Sodium Phosphate	108.7	0.906
			Other components		
			D-Glucose (Dextrose)	4500	24.98
			Sodium pyruvate	110	1
			HEPES	-	-
			Phenol Red	-	-