

MEM/F-12, GlutaPlus, HEPES

Cat. No.: G4612

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.

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!

Ver. No.: V1.1-20260531

G4612 DMEM/F-12 Formula

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 (MgSO ₄) (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(Na ₂ HPO ₄)(anhyd.)	71.02	0.500
L-Isoleucine	54.47	0.416	Sodium dihydrogen phosphate(NaH ₂ PO ₄)(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			