Tinzyme Co., Limited

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Glasgow's MEM (GMEM)

Product Number: S010410

Shipping and Storage

Transportation at room temperature; Store at 2-8℃ away from light, with a shelf life of 12 months.

Component

Component	S010410
Glasgow's MEM (GMEM)	500mL

Description

Glasgow's MEM (GMEM), initially developed by Ian McPherson and Michael Stoker, was designed for use with kidney cell lines (e.g., BHK-21) as an improved form of Eagle's Minimum Essential Medium. It is employed to study genetic factors influencing cellular capabilities. This product, Glasgow's MEM, contains amino acids and vitamins at twice the concentration of the original base Eagle medium and is free of proteins, lipids, or growth factors. Therefore, please add 10% trypticase phosphate broth as needed before use. Glasgow MEM utilizes a sodium bicarbonate buffering system (2.75 g/L), requiring a 5 – 10% CO2 environment to maintain physiological pH.

This product is sterilized by filtration through a 0.1μm membrane, with pH6.7-7.1, containing 25mM D-glucose and supplemented with 2.0mM L-alanyl-L-glutamine. It includes phenol red as an indicator, and is free of sodium pyruvate, HEPES buffer system, and trypticase phosphate broth.

Note

1. This product has been filtered and sterilized. When using it, attention should be paid to aseptic operation to avoid contamination;
2. To maintain optimal performance, do not perform freeze-thaw treatment.

Formula

Component	Concentration (mg/L)	Concentration (mM)
Amino Acids		
L-Arginine hydrochloride	42	0.19905214
L-Cystine 2HCl	31	0.09904154
L-Glutamine	292	2
L-Histidine hydrochloride-H20	21	0.1
L-Isoleucine	52	0.39694658
L-Leucine	52	0.39694658
L-Lysine hydrochloride	73	0.3989071
L-Methionine	15	0.10067114
L-Phenylalanine	33	0.2
L-Threonine	47.6	0.39999998
L-Tryptophan	8	0.039215688
L-Tyrosine disodium salt dihydrate	52	0.19923371
L-Valine	46.8	0.4
Vitamins		
Choline chloride	2	0.014285714

D-Calcium pantothenate	2	0.004192872
Folic Acid	2	0.004535148
Niacinamide	2	0.016393442
Pyridoxal hydrochloride	2	0.009803922
Riboflavin	0.2	5.32E-04
Thiamine hydrochloride	2	0.005934718
i-Inositol	3.6	0.02
Inorganic Salts		
Calcium Chloride ($CaCl_2$) (anhyd.)	200	1.8018018
Ferric Nitrate ($Fe(NO_3)_3$ $9H_2O$)	0.1	2.48E-04
Magnesium Sulfate ($MgSO_4$) (anhyd.)	97.67	0.8139166
Potassium Chloride (KCl)	400	5.3333335
Sodium Bicarbonate ($NaHCO_3$)	2750	32.738094
Sodium Chloride (NaCl)	6400	110.344826
Monosodium Phosphate($NaH2PO_4$)	108	0.89855075
Other Components		
D-Glucose (Dextrose)	4500	25
Phenol Red	15	0.039851222