

IMDM Medium

with L-Alanyl-L-Glutamine, with phenol red, with sodium bicarbonate, with HEPES, sterile-filtered, suitable for cell culture

Catalog number: LF-KR-ACE01109

Product Form: Clear solution at 1x

Product size: 500 mL

Sterility: Sterile-filtered

pH: 7.20~7.80

Endotoxin (LAL test): ≤ 5 EU/mL

Shipment: Ambient

Storage: Store at 2-8 °C for 12 months

Application: Iscove's Modified Dulbecco's Medium (IMDM) is a complex and enriched growth medium for cell culture. It is a modification of Dulbecco's Modified Eagle Medium (DMEM) and contains additional amino acids and vitamins. IMDM contains potassium nitrate, replacing ferric nitrate. IMDM can support the growth of a wide variety of mammalian cells, including Jurkat, COS-7, and macrophage cells, murine B lymphocytes, hemopoietic tissue from bone marrow, B cells stimulated with lipopolysaccharide, T lymphocytes, and a variety of hybrid cells.

Usage instruction: IMDM contains no proteins, lipids, or growth factors. Therefore, IMDM may require supplementation, commonly with 10% Fetal Bovine Serum (FBS). IMDM uses a sodium bicarbonate buffer system and therefore requires a 5–10% CO₂ environment to maintain physiological pH.

For scientific research use only, not for clinical diagnosis or treatment.

Formulation:

Components	Molecular Weight	Concentration (mg/L)	Concentration (mM)
Amino Acids			
Glycine	75	30	0.4
L-Alanine	89	25	0.28089887
L-Arginine hydrochloride	211	84	0.39810428
L-Asparagine (freebase)	132	25	0.18939394
L-Aspartic acid	133	30	0.22556391
L-Cystine 2HCl	313	91.4	0.29201278
L-Glutamic Acid	147	75	0.5102041
L-Glutamine	146	584	4
L-Histidine hydrochloride-H2O	210	42	0.2
L-Isoleucine	131	105	0.8015267
L-Leucine	131	105	0.8015267
L-Lysine hydrochloride	183	146	0.7978142
L-Methionine	149	30	0.20134228
L-Phenylalanine	165	66	0.4
L-Proline	115	40	0.3478261
L-Serine	105	42	0.4
L-Threonine	119	95	0.79831934
L-Tryptophan	204	16	0.078431375
L-Tyrosine disodium salt	225	104	0.46222222
L-Valine	117	94	0.8034188
Vitamins			
Biotin	244	0.013	5.33E-05
Choline chloride	140	4	0.028571429
D-Calcium pantothenate	477	4	0.008385744
Folic Acid	441	4	0.009070295
Niacinamide	122	4	0.032786883
Pyridoxal hydrochloride	204	4	0.019607844
Riboflavin	376	0.4	0.00106383
Thiamine hydrochloride	337	4	0.011869436
Vitamin B12	1355	0.013	9.59E-06
i-Inositol	180	7.2	0.04
Inorganic Salts			

Calcium Chloride (CaCl ₂) (anhyd.)	111	165	1.4864864
Magnesium Sulfate (MgSO ₄) (anhyd.)	120	97.67	0.8139166
Potassium Chloride (KCl)	75	330	4.4
Potassium Nitrate (KNO ₃)	101	0.076	7.52E-04
Sodium Bicarbonate (NaHCO ₃)	84	3024	36
Sodium Chloride (NaCl)	58	4505	77.67242
Sodium Phosphate monobasic (NaH ₂ PO ₄ -H ₂ O)	138	125	0.9057971
Sodium Selenite (Na ₂ SeO ₃ -5H ₂ O)	173	0.017	9.83E-05
Other Components			
D-Glucose (Dextrose)	180	4500	25
HEPES	238	5958	25.033613
Phenol Red	376.4	15	0.039851222
Sodium Pyruvate	110	110	1