



Technical Datasheet

Iscove's Modified Dulbecco's Medium (IMDM)

With L-Glutamine, 25mM HEPES buffer and Sodium bicarbonate Without Glucose

Product Code: AL230A

Product Description:

Iscove's Modified Dulbecco's Medium (IMDM) is an enriched modification of Dulbecco's Modified Eagle's Medium wherein serum can be partially or totally replaced by chemically defined substances. The medium contains additional amino acids, sodium selenite, sodium pyruvate, vitamins and inorganic salts. Potassium nitrate is substituted by ferric nitrate. IMDM was the first medium utilizing HEPES buffer. The medium when appropriately supplemented supports good growth of precursor cells of erythrocytes and macrophages. The medium also supports good growth of T and B lymphocytes and a variety of hybrid cells under serum free or reduced serum conditions.

AL230A is Iscove's Modified Dulbecco's Medium with L-Glutamine, 25mM HEPES buffer and Sodium bicarbonate. It does not contain Glucose. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37°C prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition:

Ingredients	mg/L
INORGANIC SALTS	
Calcium chloride dihydrate	219.000
Magnesium sulphate anhydrous	97.720
Potassium chloride	330.000
Potassium nitrate	0.076
Sodium bicarbonate	3024.000
Sodium chloride	4505.000
Sodium dihydrogen phosphate anhydrous	109.000
Sodium selenite	0.0173
AMINO ACIDS	
Glycine	30.000
L-Alanine	25.000
L-Arginine hydrochloride	84.000
L-Asparagine	25.000

L-Cystine dihydrochloride L-Glutamic acid L-Glutamine S84.000 L-Histidine hydrochloride monohydrate L-Isoleucine L-Isoleucine L-Leucine L-Lysine hydrochloride L-Presine hydrochloride L-Proline L-Proline L-Threonine L-Tryptophan L-Tryrosine disodium salt L-Valine VITAMINS Choline chloride D-Biotin D-Ca-Pantothenate Folic acid Nicotinamide Pyridoxal hydrochloride Riboflavin Thiamine hydrochloride Vitamin B12 i-Inositol OTHERS HEPES Buffer Phenol red sodium salt 15.000 Sodium pyruvate 110.000 104.800 104.800 104.800 104.800 104.800 104.800 105.8000 105.8000 106.8000 107.8000 106.8000	L-Asparagine	30.000
L-Glutamine 75.000 L-Glutamine 584.000 L-Histidine hydrochloride monohydrate 42.000 L-Isoleucine 104.800 L-Leucine 104.800 L-Lysine hydrochloride 146.200 L-Methionine 30.000 L-Phenylalanine 66.000 L-Proline 40.000 L-Serine 42.000 L-Threonine 95.200 L-Tryptophan 16.000 L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		
L-Histidine hydrochloride monohydrate 42.000 L-Isoleucine 104.800 L-Leucine 104.800 L-Lysine hydrochloride 146.200 L-Methionine 30.000 L-Phenylalanine 66.000 L-Proline 40.000 L-Serine 42.000 L-Threonine 95.200 L-Typtophan 16.000 L-Valine 93.600 VITAMINS VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		75.000
L-Isoleucine 104.800 L-Leucine 104.800 L-Lysine hydrochloride 146.200 L-Methionine 30.000 L-Phenylalanine 66.000 L-Proline 40.000 L-Serine 42.000 L-Threonine 95.200 L-Tryptophan 16.000 L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Glutamine	584.000
L-Isoleucine 104.800 L-Leucine 104.800 L-Lysine hydrochloride 146.200 L-Methionine 30.000 L-Phenylalanine 66.000 L-Proline 40.000 L-Serine 42.000 L-Threonine 95.200 L-Tryptophan 16.000 L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Histidine hydrochloride monohydrate	42.000
L-Lysine hydrochloride 146.200 L-Methionine 30.000 L-Phenylalanine 66.000 L-Proline 40.000 L-Serine 42.000 L-Threonine 95.200 L-Tryptophan 16.000 L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		104.800
L-Methionine 30.000 L-Phenylalanine 66.000 L-Proline 40.000 L-Serine 42.000 L-Threonine 95.200 L-Tryptophan 16.000 L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Leucine	104.800
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L-Serine 42.000 L-Threonine 95.200 L-Tryptophan 16.000 L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer Phenol red sodium salt 15.000	L-Phenylalanine	66.000
L-Threonine 95.200 L-Tryptophan 16.000 L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Proline	40.000
L-Tryptophan 16.000 L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Serine	42.000
L-Tyrosine disodium salt 104.200 L-Valine 93.600 VITAMINS Choline chloride D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid Nicotinamide Pyridoxal hydrochloride Riboflavin 0.400 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Threonine	95.200
L-Valine 93.600 VITAMINS Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		16.000
VITAMINS 4.000 Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Tyrosine disodium salt	104.200
Choline chloride 4.000 D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	L-Valine	93.600
D-Biotin 0.013 D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	VITAMINS	
D-Ca-Pantothenate 4.000 Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	Choline chloride	4.000
Folic acid 4.000 Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		0.013
Nicotinamide 4.000 Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	D-Ca-Pantothenate	4.000
Pyridoxal hydrochloride 4.000 Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	Folic acid	4.000
Riboflavin 0.400 Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		4.000
Thiamine hydrochloride 4.000 Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	•	4.000
Vitamin B12 0.013 i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		0.400
i-Inositol 7.200 OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000	•	4.000
OTHERS HEPES Buffer 5958.000 Phenol red sodium salt 15.000		0.013
HEPES Buffer 5958,000 Phenol red sodium salt 15.000	i-Inositol	7.200
Phenol red sodium salt 15.000	5	
		5958.000
Sodium pyruvate 110.000		15.000
	Sodium pyruvate	110.000

Quality Control:

Appearance

Orangish red colored, clear solution

рн

7.00 - 7.60



Osmolality in mOsm/Kg H2O

260.00 -300.00

Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Cultural Response

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts

Endotoxin Content

NMT 1EU/ml

Storage and Shelf Life:

Store at 2-8°C away from bright light. Shelf life is 12 months. Use before expiry date given on the product label.

Disclaimer: Revision: 03/2022

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