

DATA SHEET

Rev.ver: 01

1. Identification

Product name **Iscove's Modified Dulbecco's Medium (IMDM) w/L-Glutamine, 25mM HEPES buffer and 3.024 gms per litre Sodium bicarbonate w/o Phenol red**

Catalog.no **CCML049**

2. Description

Iscove's Modified Dulbecco's Medium (IMDM) is a highly enriched modification of Dulbecco's Modified Eagle's Medium (DMEM) formulated to support the growth of a wide range of mammalian cells, including high-density and fastidious cell types. Originally developed by Iscove and Melchers, IMDM contains increased concentrations of amino acids and vitamins, along with selenium and other trace elements, to promote optimal cell growth and performance.

The formulation replaces ferric nitrate with ferric sulfate and includes sodium pyruvate and a higher glucose concentration to enhance energy metabolism. Its balanced combination of nutrients, inorganic salts, and buffering systems (sodium bicarbonate and optional HEPES) maintains physiological pH and provides superior support under both CO₂ and non-CO₂ incubation conditions.

IMDM is widely used for culturing hybridomas, lymphocytes, macrophages, and other mammalian cells in serum-supplemented, serum-reduced, or defined serum-free systems. It is available in various formulations—with or without L-glutamine, HEPES, or phenol red—to accommodate different culture requirements.

3. Product Specifications

Appearance	Clear, colorless solution.
CO ₂ concentration, optimum	5.0 %
Storage and shelf life	Store at +2°C to +8°C protected from light. Once opened, store at 4°C and use within 6-8 weeks.
Shipping conditions	Ambient

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4. Formulation

Components	Concentration mg/L
Amino Acids:	
L-Alanine	25.00
L-Arginine HCl	84.00
L-Asparagine H ₂ O	28.40
L-Aspartic Acid	30.00
L-Cystine 2HCl	91.24
L-Glutamic Acid	75.00
L-Glutamine	584.00
Glycine	30.00
L-Histidine HCl H ₂ O	42.00
L-Isoleucine	105.00
L-Leucine	105.00
L-Lysine HCl	146.00
L-Methionine	30.00
L-Phenylalanine	66.00
L-Proline	40.00
L-Serine	42.00
L-Threonine	95.00
L-Tryptophan	16.00
L-Tyrosine 2Na 2H ₂ O	103.79
L-Valine	94.00
Vitamins:	
D-Biotin	0.013

Components	Concentration mg/L
Choline chloride	4.00
D-Calcium Pantothenate	4.00
Folic Acid	4.00
myo-Inositol	7.20
Nicotinamide	4.00
Pyridoxal HCl	4.00
Riboflavin	0.40
Thiamine HCl	4.00
Vitamin B12	0.013
Inorganic Salts	
CaCl ₂ 2H ₂ O	219.00
MgSO ₄ (anhydrous)	97.72
KCl	330.00
KNO ₃	0.076
NaHCO ₃	3024.00
NaCl	4505.00
Na ₂ HPO ₄ (anhydrous)	109.00
Na ₂ SeO ₃	0.0173
Other Components:	
D-Glucose	4500.00
HEPES buffer	5958.00
Sodium Pyruvate	110.00

5. Precautions and Disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.