Product sheet

IMDM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 25 mM HEPES, w: 1.0 mM Sodium pyruvate, w: 3.024 g/L NaHCO3 | 820800a

Iscove's Modified Dulbecco's Medium (IMDM) is a complex and enriched growth medium for cell culture. IMDM is a modification of DMEM containing selenium and has additional amino acids, vitamins, and inorganic salts compared to DMEM. It lacks iron and requires supplementation with Fetal Bovine Serum (FBS). IMDM uses a sodium bicarbonate buffer system and requires a 5-10% CO2 environment to maintain physiological pH.

IMDM is well suited for rapidly proliferating, high-density cell cultures, including Jurkat, COS-7, and macrophage cells. The various modifications of IMDM available for a range of cell culture applications can be found using the media selector tool. Liquid media provide essential nutrients for all cell culture applications. Each of our high-quality cell culture media is manufactured according to the initially published formula or modifications necessary to the consistent performance and stability of the culture medium.

IMDM vs. DMEM

IMDM contains potassium nitrate instead of ferric nitrate and HEPES and sodium pyruvate. The additional components in IMDM make it more suitable for specialized cell types and specific applications than DMEM.

IMDM vs. RPMI

IMDM and RPMI have different formulations that may be relevant for PMA/ionomycin stimulation. One significant difference is the concentration of Ca2+. While RPMI contains 0.42 mM Ca2+, IMDM contains 1.49 mM.

Quality control

- pH = 7.2 +/- 0.02 at 20-25°C.
- Each lot has been tested for sterility and absence of mycoplasma and bacteria.

Maintenance

- Keep refrigerated at +2°C to +8°C in the dark. Freezing and warming up to +37° C minimize the quality of the product.
- Do not heat the medium to more than 37° C or use uncontrollable sources of heat (e.g., microwave appliances).
- If only a part of the medium is to be used, remove this amount from the bottle and warm it up at room temperature.
- Shelf life for any medium except for the basic medium is 8 weeks from the date of manufacture.

Composition

	Components	mg/L
Inorganic Salts	Calcium chloride x 2 H2O	219,00
	Potassium chloride	330,00
	Potassium nitrate	0.076
	Magnesium sulfate anhydrous	97,73
	Sodium chloride	4,505.00
	Sodium dihydrogen phosphate anhydrous	109,00

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	Sodium selenite	0,02
Other Components	D(+)-Glucose anhydrous	4,500.00
	HEPES	5,958.00
	Sodium pyruvate	110,00
	Phenol red	15,00
Amino Acids	L-Alanine	25,00
	L-Arginine x HCl	84,00
	L-Asparagine x H2O	25,00
	L-Aspartic acid	30,00
	L-Cystine x 2HCl	91,24
	L-Glutamine	584,00
	L-Glutamic acid	75,00
	Glycine	30,00
	L-Histidine x HCl x H2O	42,00
	L-Isoleucine	104,80
	L-Leucine	104,80
	L-Lysine x HCl	146,20
	L-Methionine	30,00
	L-Phenylalanine	66,00
	L-Proline	40,00
	L-Serine	42,00

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	L-Threonine	95,20
	L-Tryptophan	16,00
	L-Tyrosine x 2Na	104,20
	L-Valine	93,60
Vitamins	D(+)-Biotin	0.013
	D-Calcium pantothenate	4,00
	Choline chloride	4,00
	Folic acid	4,00
	myo-Inositol	7,20