

**Iscove's Modified Dulbecco's Medium**  
w/o L-Glutamine w/o Hepes

**CAT N°** : ISL0192-500

**Theoretical pH** : 7.3 ± 0.3

**Osmolality** : 260 mOsm/kg ± 10 %

**Colour** : red, clear solution

**Storage conditions** : +2°C to +8°C

**Shelf life** : 24 months

**Sterility tests** :

- Bacteria in aerobic and anaerobic conditions
- Fungi and yeasts

**Endotoxin** : < 1 EU/ml

**Cell growth test** :

Medium tested for the ability to support SP2/0-Ag14 cell growth.

**Composition** : Displayed on website, also available on request.

**Recommended use** :

- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store product in an area protected from light (not necessary for saline solutions).
- Manipulate the product in aseptic conditions (e.g. : under laminar air flow)
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall...)

The product is intended to be used in vitro, in laboratory only. Do not use it in therapy, human or veterinary applications.

**Application** :

In 1976, Guilbert and Iscove demonstrated that precursor cells of erythrocytes and macrophages could be cultured in a reduced-serum medium supplemented with albumin, transferrin, lecithin, and selenium.

Iscove's medium is a modification of Dulbecco's Modified Eagle's Medium (DMEM) containing selenium, additional amino acids and vitamins, sodium pyruvate, HEPES buffer, and potassium nitrate instead of ferric nitrate .

Further studies demonstrated that Iscove's Medium would support murine B lymphocytes, hemopoietic tissue from bone marrow, B cells stimulated with lipopolysaccharide, T lymphocytes, and a variety of hybrid cells.

**For Research use only**

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**Utilisation :**

Supplements, such as antibiotics, should be added as sterile supplements to the medium. Add 20ml/l of L-Glutamine 200mM and 25 ml/l of Hepes 1M before using this medium.

Storage conditions and shelf-life of supplemented product will be affected by the nature of the supplements. Sterile serum should not be refiltered before or after being added to sterile medium because growth promoting capacity may be reduced upon re-filtration.

**Indications of deterioration :**

Medium should be clear and free of particulate and flocculent material. Do not use if medium is cloudy or contains precipitate.

Other evidence of deterioration may include colour change or degradation of physical or performance characteristics.

**References :**

1. Iscove, N.N and Melchers, F. (1978). Complete Replacement of Serum by Albumin, Transferrin, and Soybean Lipid in Cultures of Lipopolysaccharide-Reactive B Lymphocytes. *J. Exp. Medicine.* 147, 923-933.
2. Iscove, N.N., Guilbert, L.J. and Weyman, C. (1980). Complete Replacement of Serum in Primary Cultures of Erythropoietin Dependent Red Cell Precursors [CFU-E] by Albumin, Transferrin, Iron, Unsaturated Fatty Acid, Lecithin and Cholesterol. *Exp. Cell Research.* 126, 121-126.

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**CAT N° : ISL0192-500 IMDM FORMULATION**

	Iscove's Modified Dulbecco's Medium (IMDM)	L0190 Liquid mg/l	L0191 Liquid mg/l	L0192 Liquid mg/l	P0191 Liquid mg/l
Amino Acids	Glycine	30	30	30	30
	L-Alanine	25	25	25	25
	L-Alanyl-L-Glutamine (Glutamine stable)	/	862	/	/
	L-Arginine Monohydrochloride	84	84	84	84
	L-Asparagine Monohydrate	28,4	28,4	28,4	28,4
	L-Aspartic Acid	30	30	30	30
	L-Cystine Dihydrochloride	91,24	91,24	91,24	91,24
	L-Glutamic Acid	75	75	75	75
	L-Glutamine	584	/	/	584
	L-Histidine Monohydrochloride Monohydrate	42	42	42	42
	L-Isoleucine	105	105	105	105
	L-Leucine	105	105	105	105
	L-Lysine Monohydrochloride	146	146	146	146
	L-Methionine	30	30	30	30
	L-Phenylalanine	66	66	66	66
	L-Proline	40	40	40	40
	L-Serine	42	42	42	42
	L-Threonine	95	95	95	95
L-Tryptophan	16	16	16	16	
L-Tyrosine Disodium Salt Dihydrate	103,79	103,79	103,79	103,79	
L-Valine	94	94	94	94	
Inorganic Salts	Calcium Chloride Dihydrate	219	219	219	219
	Magnesium Sulfate Anhydrous	97,67	97,67	97,67	97,67
	Potassium Chloride	330	330	330	330
	Potassium Nitrate	0,076	0,076	0,076	0,076
	Sodium Bicarbonate	3024	3024	3024	/
	Sodium Chloride	4505	4505	4505	4505
	Sodium Phosphate Monobasic Anhydrous	109	109	109	109
	Sodium Selenite	0,017	0,017	0,017	0,017
Vitamins	Choline Chloride	4	4	4	4
	D-Biotin	0,013	0,013	0,013	0,013
	D-Ca Pantothenate	4	4	4	4
	Folic Acid	4	4	4	4
	Myo-Inositol	7,2	7,2	7,2	7,2
	Nicotinamide	4	4	4	4
	Pyridoxal Hydrochloride	4	4	4	4
	Riboflavin	0,4	0,4	0,4	0,4
	Thiamine Hydrochloride	4	4	4	4
	Vitamin B12	0,013	0,013	0,013	0,013
O.C.*	D-Glucose Anhydrous	4500	4500	4500	4500
	Hepes Free Acid	5958	5958	/	5958
	Phenol Red Sodium Salt	16	16	16	16
	Sodium Pyruvate	110	110	110	110

\* Other components

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