

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

CAT N° : L0192

Theoretical pH : 7.3 ± 0.3

Osmolality : 260 mOsm/kg $\pm 10\%$

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

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.

Utilisation :

Supplements, such as antibiotics, should be added as sterile supplements to the medium.

Add 20ml/l of L-Glutamine 200mM (CAT N° : X0550), and 25 ml/l of Hepes 1M (CAT N° : L0180) 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 re-filtered 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.

Product code : L0192

Product name : Iscove's Modified Dulbecco's Medium w/o L-Glutamine w/o Hepes

CAS Number	Components	Quantity in g/l
10035-04-8	Calcium Chloride Dihydrate	0.21900000
7487-88-9	Magnesium Sulfate Anhydrous	0.09767000
7447-40-7	Potassium Chloride	0.33000000
7757-79-1	Potassium Nitrate	0.00007600
7647-14-5	Sodium Chloride	4.50500000
7558-80-7	Sodium Phosphate Monobasic Anhydrous	0.10900000
10102-18-8	Sodium Selenite	0.00001700
50-99-7	D-Glucose Anhydrous	4.50000000
56-40-6	Glycine	0.03000000
56-41-7	L-Alanine	0.02500000
1119-34-2	L-Arginine Monohydrochloride	0.08400000
5794-13-8	L-Asparagine Monohydrate	0.02840000
56-84-8	L-Aspartic acid	0.03000000
30925-07-6	L-Cystine Dihydrochloride	0.09124000
56-86-0	L-Glutamic Acid	0.07500000
5934-29-2	L-Histidine Monohydrochloride Monohydrate	0.04200000
73-32-5	L-Isoleucine	0.10500000
61-90-5	L-Leucine	0.10500000
657-27-2	L-Lysine Monohydrochloride	0.14600000
63-68-3	L-Methionine	0.03000000
63-91-2	L-Phenylalanine	0.06600000
147-85-3	L-Proline	0.04000000
56-45-1	L-Serine	0.04200000
72-19-5	L-Threonine	0.09500000
73-22-3	L-Tryptophan	0.01600000
69847-45-6	L-Tyrosine Disodium Salt Dihydrate	0.10379000
72-18-4	L-Valine	0.09400000
67-48-1	Choline Chloride	0.00400000
58-85-5	D-Biotin	0.00001300
137-08-6	D-Ca Pantothenate	0.00400000
59-30-3	Folic Acid	0.00400000
87-89-8	Myo-Inositol	0.00720000
98-92-0	Nicotinamide (Nicotinic acid amide)	0.00400000
65-22-5	Pyridoxal Hydrochloride	0.00400000
83-88-5	Riboflavin	0.00040000
67-03-8	Thiamine Hydrochloride	0.00400000
68-19-9	Vitamine B12	0.00001300
34487-61-1	Phenol Red Sodium Salt	0.01600000
113-24-6	Sodium Pyruvate	0.11000000
144-55-8	Sodium Bicarbonate	3.02400000
WATER		985.80918100