

Iscove's Modified Dulbecco's Medium w/ Stable Glutamine w/ 25mM Hepes

CAT N° : L0191

Theoretical pH : 7.2 ± 0.3

Osmolality : 290 mOsm/kg $\pm 10 \%$

Colour : Red, clear solution

Storage conditions : +2°C to +8°C. Protect from light.

Shelf life : 24 months

Sterility tests :

- Bacteria in aerobic and anaerobic conditions
- Fungi and yeasts

Endotoxin : < 1 EU/ml

Composition : Displayed on website and in catalogue; 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.

The stable Glutamine prevents the intramolecular cyclization reaction associated with solutions of L-Glutamine. This derivative is therefore stable in solution and allows the formulation of cell culture media containing L-Glutamine that may be stored at 4°C for extended periods. The dipeptide is metabolized within the cells to yield L-Glutamine plus a second amino acid.

Uses :

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

Storage conditions and shelf-life of supplemented product will be affected by the nature of the supplements.

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.

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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
39537-23-0	L-Alanyl-L-Glutamine	0.86200000
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
7365-45-9	Hepes Free Acid	5.95800000
34487-61-1	Phenol Red Sodium Salt	0.01600000
113-24-6	Sodium Pyruvate	0.11000000
144-55-8	Sodium Bicarbonate	3.02400000
WATER		978.98918100