

Iscove's Modified DMEM

w/ L-Glutamine w/ 25mM HEPES w/o Sodium Bicarbonate

CAT N° : P0191

Theoretical pH : 4.9 ± 0.3

Osmolality : 225 mOsm/kg $\pm 10\%$

Colour : off-white powder

Storage conditions : Store dry powder medium at +2°C to +8°C
Store hydrated medium at +2°C to +8°C, protected from light

Shelf life : 36 months

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 the product in a dry area
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall...)
- Protect the product from any form of humidity
- Use, in one time, after opening, the entire quantity of product of the container, without making a concentrated solution (to avoid the formation of precipitates). If it is not possible, close the container immediately after sampling the quantity of powder required.
- Supplements can be added prior to sterile filtration of the medium or aseptically introduced to sterile medium (respect the final concentration of the media). The nature of the supplements may affect storage conditions and shelf life of the medium.

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 (DME) containing selenium, additional amino acids and vitamins, sodium pyruvate, HEPES buffer, and potassium nitrate instead of ferric nitrate .

Preparation instructions :

- 1) Measure 90% of final required volume of water. Water temperature should be 15-20°C.
- 2) While gently stirring the water, add slowly the powdered medium (17.709 g/l). Stir until dissolved. Do not heat.
- 3) Rinse original package with a small amount of water to remove all traces of powder. Add to solution in step 2.
- 4) For each litre being prepared, add 3.02g of sodium bicarbonate (CAT N° : P2060) or 40.3 ml of 7.5% sodium bicarbonate solution (CAT N° : L0680). Mix until completely dissolved.

- 5) While stirring the solution, adjust the pH of the medium to 0.1 – 0.3 pH units below the desired pH since it may rise during filtration. The use of 1 N HCl or 1 N NaOH is recommended.
- 6) Add additional water to bring the solution to final volume.
- 7) Sterilize immediately by filtration using a membrane with a porosity of 0.22 microns.
- 8) Aseptically dispense medium into sterile container.

Indications of deterioration :

Dry powder medium should be free flowing. Do not use if powder caked. Prepared medium should be cleared of particulates and flocculent material. Do not use if liquid medium is cloudy or contains precipitate. Other evidence of deterioration may include colour change or degradation of physical or performance characteristics.

Product code : P0191

Product name : Iscove's Modified DMEM w/ L-Glutamine w/o Sodium Bicarbonate w/ 25 mM 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
56-85-9	L-Glutamine	0.58400000
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
WATER		982.29118100