

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

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.

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.