

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.