

Macrophage Migration Inhibitory Factor, rat recombinant (rrMIF)

Catalog No: 97608 Lot No: XXXXX Source: *E. coli*

Synonyms: Macrophage migration inhibitory factor, MIF, Glutathione-binding 13 kDa protein, L-dopachrome

isomerase, L-dopachrome tautomerase, Phenylpyruvate tautomerase

Background

The cytokine Macrophage migration inhibitory factor (MIF) has been identified to be secreted by the pituitary gland and the monocyte/macrophage and to play an important role in endotoxic shock. MIF has the unique property of being released from macrophages and T cells in response to physiological concentrations of glucocorticoids. The secretion of MIF is tightly regulated and decreases at high, anti-inflammatory steroid concentration.

Description

MIF rat recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 115 amino acids and having a molecular mass of 12.5 kDa. MIF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in 1×PBS, pH 7.4 and 5% trehalose.

Solubility

It is recommended to reconstitute the lyophilized MIF in sterile 18 M Ω -cm H $_2$ O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized MIF, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution MIF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MPMFIVNTNV PRASVPEGFL SELTQQLAQA TGKPAQYIAV HVVPDQLMTF SGTSDPCALC SLHSIGKIGG AQNRNYSKLL CGLLSDRLHI SPDRVYINYY DMNAANVGWN GSTFA

Usage

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