MIF
Recombinant Human Migration Inhibitory Factor His

Catalog No.	CS305A CS305B CS305C	**Quantity:**	10 µg 50 µg 1 mg

Alternate Names: GIF, GLIF, MMIF

Description: Human MIF consists of two alpha-helices and six beta-strands, four of which form a beta-sheet. The two remaining beta-strands interact with other MIF molecules, creating a trimer. Structural and functional studies suggest MIF is bifunctional with segregated topology.
The N- and C-termini mediate enzyme activity (in theory). Phenylpyruvate tautomerase activity (enol-to-keto) has been demonstrated and is dependent upon Pro at position 1. Amino acids 50 - 65 have also been suggested to contain thiolprotein oxidoreductase activity. MIF has proinflammatory cytokine activity centered around aa 49-65. On fibroblasts, MIF induces, IL-1, IL-8 and MMP expression. On macrophages, MIF stimulates NO production and TNF-alpha release folllowing IFN-gamma activation. MIF apparently acts through CD74 and CD44 in some form of trimeric interaction. Human MIF is active on mouse cells. Human MIF is 90%, 94%, 95%, and 90% aa identical to mouse, bovine, porcine and rat MIF, respectively.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Gene ID: 4282

Source: *E. coli*

Molecular Weight: Approximately 13.5 kDa, a single non-glycosylated polypeptide chain containing 117 amino acids, with 6×His at C-terminus

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Purity: >95% by SDS-PAGE and HPLC analysis.

Endotoxin Level: Less than 1 EU/µg of rHuMIF His as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The specific activity is determined by binding rhCD74 in a functional ELISA.

Amino Acid Sequence: MPMFIVNTNV PRASVPDGFL SELTQQLAQA TGKPPQYIAV HVVPDQLMAF GGSSEPCALC SLHSIGKIGG AQNRSYSKLL CGLLAERLRI SPDRVYINYY DMNAANVGWN NSTFALE**HHH HHH**

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com

Storage & Stability: This lyophilized preparation is stable at 2-4°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com