



## Technical Data Sheet

### Recombinant Murine Migration Inhibitor Factor (rMuMIF)

#### **Murine Migration Inhibitory Factor**

Macrophage migration inhibitory factor (MIF or MMIF), also named as glycosylation-inhibiting factor (GIF), L-dopachrome isomerase, or phenylpyruvate tautomerase, is a protein encoded by the MIF gene. It is released from white blood cells by bacterial antigen stimulation to trigger an acute immune response, or by glucocorticoids to counter-act the inhibitory effects of glucocorticoids on immune system. MIF is a homotrimer of which each subunit contains 115 amino acids. As mentioned above, MIF is involved in the innate immune response to bacterial pathogens and counter-acts the anti-inflammatory activity of glucocorticoids. Furthermore, it also plays a role as mediator in regulating the function of macrophages in host defense and has phenylpyruvate tautomerase and dopachrome tautomerase activity in vitro. Mouse MIF is active on human cells, while human MIF is active on mouse cells. Mouse MIF is 99 %, 84 %, 90 %, and 90 % a.a. identical to rat, porcine, bovine and human MIF, respectively.

<b>Catalog Number:</b>	RC732-14
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 12.5 kDa, a single non-glycosylated polypeptide chain containing 115 amino acids.
<b>Quantity:</b>	10µg/50µg/1000µg
<b>AA Sequence:</b>	MPMFIVNTNV PRASVPEGFL SELTQQLAQA TGKPAQYIAV HVVPDQLMTF SGTNDPCALC SLHSIGKIGG AQNRNYSKLL CGLLSDRLHI SPDRVYINYY DMNAANVGWN GSTFA
<b>Purity:</b>	> 96 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Bioassay data are not available.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, 1 mM DTT.
<b>Endotoxin:</b>	Less than 1 EU/µg of rMuMIF as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into



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working aliquots and stored at  $\leq -20$  °C. Further dilutions should be made in appropriate buffered solutions.

**Storage:**

This lyophilized preparation is stable at 2-8 °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 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C.

**Avoid repeated freeze/thaw cycles.**

**Usage:**

This material is offered by Bio Basic Inc for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE.**