

## Recombinant Rat Migration Inhibitor Factor (Rat MIF)

### Product Information

Product Name	Cat#	Size
Recombinant Rat Migration Inhibitor Factor (Rat MIF)	92510ES10	10µg
	92510ES60	100 µg
	92510ES76	500 µg

### Product Description

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. Rat MIF is 99 %, 90 %, 89 %, and 89 % a.a. identical to human, murine, porcine and bovine, respectively.

### Product Properties

<b>Synonyms</b>	MIF, Glutathione-binding 13 kDa Protein, L-dopachrome Isomerase, L-dopachrome Tautomerase, Phenylpyruvate Tautomerase
<b>Accession</b>	P30904
<b>GeneID</b>	81683
<b>Source</b>	E.coli-derived Rat MIF, with an N-terminal Met.
<b>Molecular Weight</b>	Approximately 12.5 kDa
<b>AA Sequence</b>	MPMFIVNTNV PRASVPEGFL SELTQQLAQA TGKPAQYIAV HVVPDQLMTF SGTSDPCALC SLHSIGKIGG AQNRNYSKLL CGLLSDRLHI SPDRVYINYY DMNAANVGWN GSTFA
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 97% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	Test in process.
<b>Endotoxin</b>	< 1.0 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, pH 8.0, 150 mM NaCl, 3 % trehalose.  We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	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.

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

### Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.