

# Recombinant Human Macrophage migration inhibitory factor/MIF Protein

RPCB1835

## Product Information

<b>Product SKU:</b>	RPCB1835	<b>Gene ID:</b>	4282	<b>Size:</b>	10µg
<b>Tag:</b>	N-His	<b>Reactivity:</b>	Human		

## Additional Information

<b>Expression Host:</b>	E.coli	<b>Swissprot:</b>	P14174
<b>Purity:</b>	> 95% by reducing SDS-PAGE;> 95% by SEC-HPLC		

## Protein Information

**Background:** MIF (or macrophage migration inhibitory factor) was the first lymphokine/cytokine to be recognized in the pregenomics era (1, 2). Regardless, it is one of the least understood of all inflammatory mediators (1, 3). Human MIF is a 12.5 kDa, 115 amino acid (aa) nonglycosylated polypeptide that is synthesized without a signal sequence (4 - 7). Secretion occurs nonclassically via an ABCA1 transporter (8). The initiating Met is removed, leaving Pro as the first amino acid. The molecule 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 (2, 9, 10). Structure-function 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 (11). Amino acids 50 - 65 have also been suggested to contain thiol-protein oxidoreductase activity (12).

**Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Human Macrophage migration inhibitory factor/MIF Protein , tested reactivity in E.coli and has been validated in SDS-PAGE.100% guaranteed.

**Endotoxin:** < 1 EU/µg of the protein by LAL method.

**Formulation:** Supplied as a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, 50% Glycerol, pH7.4.

**Storage:**

Store at -70°C. This product is stable at  $\leq -70^{\circ}\text{C}$  for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature. Avoid repeated freeze-thaw cycles.