# MIF
# Recombinant Human MIF / GLIF (His Tag)

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| **Catalog No.** | CRH425A-His | **Quantity:** | 10 µg |
| | CRH425B-His | | 20 µg |
| | CRH425C-His | | 1.0 mg |

**Alternate Names:** Macrophage migration inhibitory factor, Glycosylation-inhibiting factor, GIF, L-dopachrome isomerase, L-dopachrome tautomerase, Phenylpyruvate tautomerase

**Description:** Macrophage migration inhibitory factor (MIF) is an immunoregulatory cytokine, the effect of which on arresting random immune cell movement was recognized several decades ago. Despite its historic name, MIF also has a direct chemokine-like function and promotes cell recruitment. MIF is an ubiquitously expressed protein that plays a crucial role in many inflammatory and autoimmune disorders. Increasing evidence suggests that MIF also controls metabolic and inflammatory processes underlying the development of metabolic pathologies associated with obesity. Further research has shown that MIF plays a particularly critical part in cell cycle regulation and therefore in tumorigenesis as well. The significance of the role of MIF in a variety of both solid and hematologic tumors has been established. More recently, interest has increased in the role of MIF in the development of central nervous system (CNS) tumors, in which it appears to influence cell cycle control. MIF contributes to malignant disease progression on several different levels. Both circulating and intracellular MIF protein levels are elevated in cancer patients and MIF expression reportedly correlates with stage, metastatic spread and disease-free survival. Blockade of MIF bioactivity successfully inhibited tumor cell growth in vivo and in vitro. MIF plays important roles in the pathogenesis of gastrointestinal, hepatic, and pancreatic disorders.

**UniProt ID:** P14174

**Protein Construction:** A DNA sequence encoding the human MIF (Pro 2-Ala 115) was fused with a polyhistidine tag at the C-terminus and a signal peptide at the N-terminus.

**Source:** HEK293 Cells

**Molecular Weight:** The recombinant human MIF consists of 125 amino acids and has a predicted molecular mass of 13.8 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhMIF is approximately 19 kDa due to glycosylation.

**Formulation:** Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

**Purity:** > 92 % as determined by SDS-PAGE.

**Endotoxin Level:** < 1.0 EU per µg of the protein as determined by the LAL method

**Biological Activity:** Testing in progress

**Predicted N-terminal:** Pro 20

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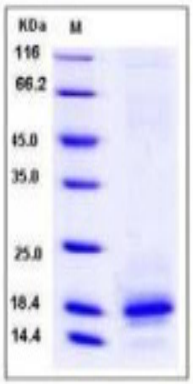
**Reconstitution:** **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
**DO NOT VORTEX**. Allow several minutes for complete reconstitution.

**Storage & Stability:** Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
**Avoid repeated freeze-thaw cycles.**

SDS-PAGE

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