Recombinant MIF protein (His tag)

Catalog Number	537537
Synonyms	MIF; Glycosylation-inhibiting factor; GIF; L-dopachrome isomerase; L-dopachrome tautomerase; Phenylpyruvate tautomerase
Species	Human
Expression System	E. coli
Accession	P14174
Molecular Weight	Predictes a molecular mass of 14.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	2-115
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 2-115 aa (P14174) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Macrophage Migration Inhibitory Factor (MIF) Fragment (aa 2-115) is a high-purity protein designed for structural and biochemical studies. This 114-amino acid fragment retains key functional regions, offering a stable and soluble unit ideal for investigating MIF's pro-inflammatory roles and enzymatic activities in immune response pathways. Macrophage Migration Inhibitory Factor (MIF) is a pro-inflammatory cytokine critical in the innate immune response to bacterial pathogens. It functions by regulating macrophage activity at inflammation sites and counteracting the anti-inflammatory effects of glucocorticoids. MIF exhibits enzymatic activities, including phenylpyruvate tautomerase and L-dopachrome tautomerase, though the physiological relevance of these activities remains under investigation. The protein is secreted via a non-classical pathway, as it lacks a cleavable signal sequence, and is localized in both the cytoplasm and extracellular space, where it modulates host defense mechanisms.