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MIF

Catalog # PVGS1372

Product Information

Primary Accession	P34884
Species	Mouse
Sequence	Met1-Ala115
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	
Expression System	E. coli
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	17319
Other Names	Macrophage migration inhibitory factor, MIF, 5.3.2.1, Delayed early response protein 6, DER6, Glycosylation-inhibiting factor, GIF, L-dopachrome isomerase, L-dopachrome tautomerase, 5.3.3.12, Phenylpyruvate tautomerase, Mif {ECO:0000303|PubMed:8413654, ECO:0000312|MGI:MGI:96982}
Target Background	Macrophage Migration Inhibitory Factor (MIF) is a pleiotropic cytokine, existing as a homotrimer in vivo. MIF was originally identified as a T cell derived factor responsible for the inhibition of macrophage migration. However, recently MIF has received much more attention because of its possible roles in angiogenesis and cancer development. MIF is over-expressed in various cancers, including pancreatic, breast, colon, brain, prostate, skin, and lung. The intratumoral expression MIF is strongly correlated with angiogenic growth factor expression, such as the expression of Interleukin 8 (IL-8) and Vascular Endothelial Growth Factor (VEGF), and with risk of recurrence after resection.

Protein Information

Name	Mif {ECO:0000303|PubMed:8413654, ECO:0000312|MGI:MGI:96982}
Function	Pro-inflammatory cytokine involved in the innate immune response to bacterial pathogens (By similarity). The expression of MIF at sites of inflammation suggests a role as mediator in regulating the function of macrophages in host defense (By similarity). Counteracts the anti-inflammatory activity of glucocorticoids (By similarity). Has phenylpyruvate tautomerase and dopachrome tautomerase activity (in vitro), but the physiological substrate is not known (PubMed:10933783, PubMed:16780921, PubMed:19188446). It is not clear whether the tautomerase activity has any physiological relevance, and whether it is important for cytokine activity (PubMed:10933783, PubMed:16780921, PubMed:19188446).
Cellular Location	Secreted. Cytoplasm {ECO:0000250|UniProtKB:P14174} Note=Does not have a cleavable signal sequence and is secreted via a specialized, non-classical pathway. Secreted by macrophages upon stimulation by bacterial lipopolysaccharide (LPS), or by M.tuberculosis antigens (By similarity). {ECO:0000250|UniProtKB:P14174}