

Recombinant Rat MIF Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52339

Size: 10ug, 100ug

Protein Name: Macrophage migration inhibitory factor (MIF) (EC 5.3.2.1) (Glutathione-binding 13 kDa protein) (L-dopachrome isomerase) (L-dopachrome tautomerase) (EC 5.3.3.12) (Phenylpyruvate tautomerase)

Synonym: Mif

UniProt ID: P30904

UniProt Link: www.uniprot.org/uniprotkb/P30904/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 115 AA

Molecular Weight: 12 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MPMFIVNTNVPRASVPEGFLSELTQQLAQATGKPAQYIAVHVVPDQLMTFSGTSDPCALCSLHSIGKI
GGAQNRNYSKLLCGLLSDRLHISPDRVYINYYDMNAANVGWNGSTFA

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Macrophage migration inhibitory factor (MIF) (EC 5.3.2.1) (Glutathione-binding 13 kDa protein) (L-dopachrome isomerase) (L-dopachrome tautomerase) (EC 5.3.3.12) (Phenylpyruvate tautomerase) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Pro-inflammatory cytokine involved in the innate immune response to bacterial pathogens. The expression of MIF at sites of inflammation suggests a role as mediator in regulating the function of macrophages in host defense. Counteracts the anti-inflammatory activity of glucocorticoids. Has phenylpyruvate tautomerase and dopachrome tautomerase activity (in vitro), but the physiological substrate is not known. It is not clear whether the tautomerase activity has any physiological relevance, and whether it is important for cytokine activity.

Subcellular Localization: Secreted . Cytoplasm . 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.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.