

Recombinant Mouse CD14 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51260

Size: 10ug, 100ug

Protein Name: Monocyte differentiation antigen CD14 (Myeloid cell-specific leucine-rich glycoprotein) (CD antigen CD14)

Synonym: Cd14

UniProt ID: P10810

UniProt Link: www.uniprot.org/uniprotkb/P10810/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 366 AA

Molecular Weight: 39 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MERVLGLLLLLVHASPPPEPCELDEESCSCNFSDPKPDWSSAFNCLGAADVLYGGGRSLEYLL
KRVDTEADLGQFTDIKSLSLKRLTVRAARIPSRILFGALRVLGISGLQELTLENLEVTGTAPPPLEAT
GPDNLNLRNVSWATRDWLAELQQWLKPKGLVLSIAQAHSNFSCEQVRVFPALSTLDLSDNPEL
GERGLISALCPLKFPTLQVLALRNAGMETPSGVCSALAAARVQLQGLDLSHNSLRDAAGAPSCDWP
SQLNSLNLSFTGLKQVPKGLPAKLSVLDLSYNRLDRNPSPDELPQVGNLSLKGNPFLDSESHSEKFN
SGVVTAGAPSSQAVALSGTLALLLGDRLFV

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 Monocyte differentiation antigen CD14 (Myeloid cell-specific leucine-rich glycoprotein) (CD antigen CD14) 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: Coreceptor for bacterial lipopolysaccharide. In concert with LBP, binds to monomeric lipopolysaccharide and delivers it to the LY96/TLR4 complex, thereby mediating the innate immune response to bacterial lipopolysaccharide (LPS) (PubMed:16148141). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:15895089, PubMed:8612135). Acts as a coreceptor for TLR2:TLR6 heterodimer in response to diacylated lipopeptides and for TLR2:TLR1 heterodimer in response to triacylated lipopeptides, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway (By similarity). Acts as an accessory receptor for M.tuberculosis lipoproteins LprA, LprG and LpqH, in conjunction with coreceptors TLR2 and TLR1. The lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen (PubMed:19362712). Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) (By similarity).

Subcellular Localization: Cell membrane ; Lipid-anchor, GPI-anchor . Secreted . Membrane raft . Golgi apparatus . Note=Soluble, secreted forms seem to exist. They may arise by cleavage of the GPI anchor.

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.