

Recombinant Rat CD14 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52507

Size: 10ug, 100ug

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

Synonym: Cd14

UniProt ID: Q63691

UniProt Link: www.uniprot.org/uniprotkb/Q63691/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 372 AA

Molecular Weight: 40 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MKLMLGLLLLPLTLVHASPATPEPCELDQDEESVRCYCNFSDPQPNWSSAFLCAGAEDVEFYGGGR
SLEYLLKRVDTEANLGQYTDIIRSLPLKRLTVRSARVPTQILFGTLRVLGYSGLRELTLENLEVTGTALS
PLLDATGPDNLNLSLRNVSWATTDTWLAELQQWLKPKGLKVLIAQAHSNLFSCQVGVFPALATLDL
SDNPGLGEKGLISALCPHKFPTLQVLALRNAGMETTSGVCSALAAARVPLQALDLSHNSLRDGTAGTP
SCDWPSQLNSLNLSFTGLEHVPKGLPAKLSVLDLSYNRLDRKPRPEELPEVGSLSLTGNPFLHSESQ
SEAYNSGVVIATLSPGSAGLSGTLALLLGHRLFV

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). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. 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. 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.