

Recombinant Human CD14 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50148

Size: 10ug, 100ug

Protein Name: Monocyte differentiation antigen CD14 (My23 antigen) (Myeloid cell-specific leucine-rich glycoprotein) (CD antigen CD14) [Cleaved into: Monocyte differentiation antigen CD14, urinary form; Monocyte differentiation antigen CD14, membrane-bound form]

Synonym: CD14

UniProt ID: P08571

UniProt Link: www.uniprot.org/uniprotkb/P08571/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 375 AA

Molecular Weight: 40 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MERASCLLLLLLPLVHVSATTPEPCELDDEDFRCVCNCFSEPQPDWSEAFQCVSAVEVEIHAGGLNLE
PFLKRVDADADPRQYADTVKALRVRRLLTVGAAQVPAQLLVGALRVLAYSRKELTLEDLKITGTMPPPL
PLEATGLALSSLRLRNVSATGRSWLAELQQWLKPGKVLISIAQAHSPAFSCEQVRAFPALTSLDLS
DNPGLGERGLMAALCPHKFPAIQNLALRNTGMETPTGVCAALAAAGVQPHSLDLSHNSLRATVNPS
APRCMWSSALNSLNSFAGLEQVPKGLPAKLRVLDLSCNRLNRAPQPDELPEVDNLTLTGDPFLVP
GTALPHEGSMNSGVVPACARSTLSVGVSGTLVLLQGARGFA

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 (My23 antigen) (Myeloid cell-specific leucine-rich glycoprotein) (CD antigen CD14) [Cleaved into: Monocyte differentiation antigen CD14, urinary form; Monocyte differentiation antigen CD14, membrane-bound form] 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 (PubMed:1698311, PubMed:23264655). 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:20133493, PubMed:22265692, PubMed:23264655). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (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 (PubMed:16880211). Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) (PubMed:23880187).

Subcellular Localization: Cell membrane ; Lipid-anchor, GPI-anchor . Secreted . Membrane raft . Golgi apparatus . Note=Secreted forms 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.