

Recombinant Human TLR1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50969

Size: 10ug, 100ug

Protein Name: Toll-like receptor 1 (Toll/interleukin-1 receptor-like protein) (TIL) (CD antigen CD281)

Synonym: TLR1, KIAA0012

UniProt ID: Q15399

UniProt Link: www.uniprot.org/uniprotkb/Q15399/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 786 AA

Molecular Weight: 90 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MTSIFHFAIIFMLILQIRIQLSESEFLVDRSKNGLIHVPKDLSQKTTILNISQNYISELWTSDILSLSKLRIL
IISHNRIQYLDISVFKFNQELEYLDLSHNKLVKISCHPTVNLKHLDSLAFDALPICKEFGNMSQLKFL
GLSTTHLEKSSVLPIAHLNISKVLLVLGETYGEKEDPEGLQDFNTESLHIVFPTNKEFHFIIDVSVKTVA
NLELSNIKCVLEDNKCSYFLSILAKLQTNPKLSNLTNNIETTWNFSFIRILQLVWHTTVWYFSSISNVKLQ
GQLDFRDFDYSGLTSLKALSISQVSDVFGFPQSYIYEIFSNNMIKNFTVSGTRMVHMLCPSKISPFLH
LDFSNLLTDTVFENCGLTELETILQMNQLKELSKIAEMTTQMKSLLQQLDISQNSVSYDEKKGDCS
WTKSLLSLNMSSNLTDTIFRCLPPRIKVLDLHSNKIKSIPKQVVKLEALQELNVAFNSLTDLPGCGSFS
SLSVLIIDHNSVSHPSADFFQSCQKMRSIKAGDNPFCCTCELGFEVKNIDQVSSEVLEGWPDYSYKCD
YPESYRGTLTKDFHMSSELSCNITLLIVTIVATMLVLAVTVTSLCSYLDLPWYLRMVCQWTQTRRRARN
IPLEELQRNLQFHAFISYSGHDSFWVKNELLPNLEKEGMQICLHERNFVPGKSIVENIITCIEKSYKSIF
VLSPNFVQSEWCHYELYFAHHNLFHEGSNSLILILLEPIQYSIPSSYHKLKSLMARRTYLEWPKEKSK
RGLFWANLRAAINIKLTEQAKK

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 Toll-like receptor 1 (Toll/interleukin-1 receptor-like protein) (TIL) (CD antigen CD281) 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: Participates in the innate immune response to microbial agents. Specifically recognizes diacylated and triacylated lipopeptides. Cooperates with TLR2 to mediate the innate immune response to bacterial lipoproteins or lipopeptides (PubMed:21078852). Forms the activation cluster TLR2:TLR1:CD14 in response to triacylated lipopeptides, this cluster triggers signaling from the cell surface and subsequently is targeted to the Golgi in a lipid-raft dependent pathway (PubMed:16880211). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response.

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein . Cytoplasmic vesicle, phagosome membrane ; Single-pass type I membrane protein . Membrane raft . Golgi apparatus . Note=Does not reside in lipid rafts before stimulation but accumulates increasingly in the raft upon the presence of the microbial ligand. In response to triacylated lipoproteins, TLR2:TLR1 heterodimers are recruited in lipid rafts, this recruitment determine the intracellular targeting to the Golgi apparatus.

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.