

Recombinant Mouse TLR1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51889

Size: 10ug, 100ug

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

Synonym: Tlr1

UniProt ID: Q9EPQ1

UniProt Link: www.uniprot.org/uniprotkb/Q9EPQ1/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 795 AA

Molecular Weight: 91 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MTKPNSLIFYCIIVLGLTLMKIQLSEECELIIRPNANLTRVPKDLPLQTTTLDLSQNNISELQTS DILSLS
KLRVLIMSYNRLQYLNISVFKFNTELEYLDLSHNEKLVILCHPTVSLKHLDLSFNAFDALPICKEFGNMS
QLQFLGLSGSRVQSSSVQLIAHLNISKVLLVLGDAYGEKEDPESLRHVSTETLHIVFPSKREFRFLLDV
SVSTTIGLELSNIKCVDLEDQGCSYFLRALSKLGKNLKLNLTLNNVETTWNSFINILQIVWHTPVKYFSI
SNVKLQGQLAFRMFNYSDTSLKALSIHQVVDVFSFPQSYIYSIFANMNIQNFTMSGTHMVHMLCPS
QVSPFLHVDFTDNL LTDMVFKDCRNLRKLTSLQKNQLKNLENIILTSKMTSLQKLDISQNSLRYS
GGIPCAWTQSLLVLNLSSNMLTGSVFRCLPPKVKVLDLHNNRIMSIPKDVTHLQALQELNVASNSLTD
LPGCGAFSSLSVLVIDHNSVSHPSSEDFQSCQNIRSLTAGNNPFQCTCEL RDFVKNIGWVAREVVEG
WPDSYRCDYPESSRG TALRDFHMSPLSCDTVLLTVTIGATMLVLAVTGAFLCLYFDLPWYVRMLCQ
WTQTRHRARHIPLLEELQRNLQFHAFVSYSGHDSA WVKNE LLPNLEKDDIQICLHERNFVPGKSIVENI
INFIEKSYKSIFVLSPHFIQSEWCHYELYFAHHNLFHEGSDNLILILLAPIPQYSIPTNYHKLKTLMSRRT
YLEWPTEKNKHGLFWANLRASINVKLVNQAEGTCYTQQ

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. 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. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (By similarity). Acts as a coreceptor for M.tuberculosis lipoproteins LprG, LpqH and PhoS1 (pstS1), in conjunction with TLR2 and for some but not all lipoproteins CD14 and/or CD36. The lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen (PubMed:19362712).

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.