

Recombinant Human TLR5 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50974

Size: 10ug, 100ug

Protein Name: Toll-like receptor 5 (Toll/interleukin-1 receptor-like protein 3)

Synonym: TLR5, TIL3

UniProt ID: O60602

UniProt Link: www.uniprot.org/uniprotkb/O60602/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 858 AA

Molecular Weight: 98 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGDHLDLLLGVVLMAGPVFGIPSCSFDGRIAFYRFCNLTQVPQVLNTTERLLLSFN YIRTVTASSFPFL
EQLQLELG SQYTPLTIDKEAFRNLPNLRILDLGSSKIYFLHPDAFQGLFHLFELRLYFCGLSDAVLKD
GYFRNLKALTRLDLSKNQIRSLYLHPSFGKLNLSKSIDFSSNQIFLVCEHELEPLQGKTL SFFSLAANS
LYSRVSDWVGKCMNPFRNMVLEILDVSGNGWTVDITGNFSNAISK SQAFSLILAHHIMGAGFGFHNIK
DPDQNTFAGLARSSVRHLDLSHG FVFSLSNSRVFETLKD LKVLNLAYNKINKIADEAFYGLDNLQVLNL
SYNLLGELYSSNFYGLPKVAYIDLQKNHIAIQDQTFKFLEKLQTLDRDNALTTIHFIPSIPDIFLSGNKL
VTLPKINLTANLIHLS ENRLENLDILYFLLRVPHLQILNQNRFSSCSGDQTPSENPSLEQLFLGENML
QLAWETELCWDVFEGLSHLQVLYLNHNYLNSLPPGVFSHLTALRGLSLNSNRLTVLSHNDLPANLEIL
DISRNQLLAPNPDVFSLSVLDITHNKFICECELSTFINWLNHTNVTIAGPPADIYCVYPDSFSGVSLFS
LSTEGCDEEEVLKSLKFS LFIVCTVTLTFLMTILTVTKFRGFCFICYKTAQRLVFKDHPQGTEPD MYK
YDAYLCFSSKDFTWVQNALLKHLDTQYSDQNRFNLCFEERDFVPGENRIANIQDAIWNSRKIVCLVS
RHFLRDGWCLEAFSYAQGRCLSDLSALIMVVVGSLSQYQLMKHQSIRGFVQKQQLRWPEDLQD
VGWFLHKLSQQILKKEKEKKDNNIPLQTVATIS

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 5 (Toll/interleukin-1 receptor-like protein 3) 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: Pattern recognition receptor (PRR) located on the cell surface that participates in the activation of innate immunity and inflammatory response (PubMed:11323673, PubMed:18490781). Recognizes small molecular motifs named pathogen-associated molecular pattern (PAMPs) expressed by pathogens and microbe-associated molecular patterns (MAMPs) usually expressed by resident microbiota (PubMed:29934223). Upon ligand binding such as bacterial flagellins, recruits intracellular adapter proteins MYD88 and TRIF leading to NF-kappa-B activation, cytokine secretion and induction of the inflammatory response (PubMed:11489966, PubMed:20855887). Plays thereby an important role in the relationship between the intestinal epithelium and enteric microbes and contributes to the gut microbiota composition throughout life (By similarity).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein .

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.