

Recombinant Human TNFR14 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51002

Size: 10ug, 100ug

Protein Name: Tumor necrosis factor receptor superfamily member 14 (Herpes virus entry mediator A) (Herpesvirus entry mediator A) (HveA) (Tumor necrosis factor receptor-like 2) (TR2) (CD antigen CD270)

Synonym: TNFRSF14, HVEA, HVEM, UNQ329/PRO509

UniProt ID: Q92956

UniProt Link: www.uniprot.org/uniprotkb/Q92956/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 283 AA

Molecular Weight: 30 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MEPPGDWGWPPPWRSTPKTDVLRVLVLYLTFLGAPCYAPALPSCKEDEYPVGSECCPKCSPGYRVKE
ACGELTGTVCEPCPPGTYYIAHLNGLSKCLQCQMCDPAMGLRASRNCSTENAVCGCSPGHFCIVQ
DGDHCAACRAYATSSPGQVRVQKGGTESQDTLCQNCPPGTFSPNGTLEECQHQTCSWLVTKAGA
GTSSSHWVWWFLSGSLVIVIVCSTVGLIICVKRRKPRGDVVKVIVSVQRKRQEAEGEATVIEALQAPP
DVTTVAVEETIPSFTGRSPNH

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 Tumor necrosis factor receptor superfamily member 14 (Herpes virus entry mediator A) (Herpesvirus entry mediator A) (HveA) (Tumor necrosis factor receptor-like 2) (TR2) (CD antigen CD270) 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: Receptor for four distinct ligands: The TNF superfamily members TNFSF14/LIGHT and homotrimeric LTA/lymphotoxin-alpha and the immunoglobulin superfamily members BTLA and CD160, altogether defining a complex stimulatory and inhibitory signaling network (PubMed:10754304, PubMed:18193050, PubMed:23761635, PubMed:9462508). Signals via the TRAF2-TRAF3 E3 ligase pathway to promote immune cell survival and differentiation (PubMed:19915044, PubMed:9153189, PubMed:9162022). Participates in bidirectional cell-cell contact signaling between antigen presenting cells and lymphocytes. In response to ligation of TNFSF14/LIGHT, delivers costimulatory signals to T cells, promoting cell proliferation and effector functions (PubMed:10754304). Interacts with CD160 on NK cells, enhancing IFNG production and anti-tumor immune response (PubMed:23761635). In the context of bacterial infection, acts as a signaling receptor on epithelial cells for CD160 from intraepithelial lymphocytes, triggering the production of antimicrobial proteins and pro-inflammatory cytokines (By similarity). Upon binding to CD160 on activated CD4+ T cells, down-regulates CD28 costimulatory signaling, restricting memory and alloantigen-specific immune response (PubMed:18193050). May interact in cis (on the same cell) or in trans (on other cells) with BTLA (By similarity) (PubMed:19915044). In cis interactions, appears to play an immune regulatory role inhibiting in trans interactions in naive T cells to maintain a resting state. In trans interactions, can predominate during adaptive immune response to provide survival signals to effector T cells (By similarity) (PubMed:19915044).; (Microbial infection) Acts as a receptor for Herpes simplex virus 1/HHV-1.; (Microbial infection) Acts as a receptor for Herpes simplex virus 2/HHV-2.

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.