

Recombinant Human TRAF3 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51012

Size: 10ug, 100ug

Protein Name: TNF receptor-associated factor 3 (EC 2.3.2.27) (CD40 receptor-associated factor 1) (CRAF1) (CD40-binding protein) (CD40BP) (LMP1-associated protein 1) (LAP1) (RING-type E3 ubiquitin transferase TRAF3)

Synonym: TRAF3, CAP-1, CRAF1, TRAFAMN

UniProt ID: Q13114

UniProt Link: www.uniprot.org/uniprotkb/Q13114/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 568 AA

Molecular Weight: 64 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MESSKKMDSPGALQTNPPLKLHTDRSAGTPVVFVPEQGGYKEKFVKTVEDKYKCEKCHLVLCSPKQT
ECGHRFCESCMAALLSSSSPKCTACQESIVKDKVFKDNCCKREILALQIYCRNESRGCAEQLMLGHL
LVHLKNDCHFEEPCVRPDCKEKVLRLKDLRDHVEKACKYREATCSHCKSQVPMIALQKHEDTDCPC
VVVSCPHKCSVQTLLRSELSAHLSECVNAPSTCSFKRYGCVFQGTNQQIKAHEASSAVQHVNLLKE
WSNSLEKKVSLQNESVEKNKSIQSLHNQICSFEIEIERQKEMLRNNESKILHLQRVIDSQAELKELD
KEIRPFRQNWEEADSMKSSVESLQNRVTELESVDKSAGQVARNTGLLESQLSRHDQMLSVHDIRLA
DMDLRFQVLETASYNGVLIWKIRDYKRRKQEAVMGKTLISLYSQPFYTGYPGYKMCARVYLNQDGM
GKGTHLSLFFVIMRGEYDALLPWPFKQKVTLMMDQGSSRRHLGDAFKPDPNSSFKKPTGEMNIA
SGCPVFVAQTVLENGTYIKDDTIFIKVIVDTSDLPDP

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 TNF receptor-associated factor 3 (EC 2.3.2.27) (CD40 receptor-associated factor 1) (CRAF1) (CD40-binding protein) (CD40BP) (LMP1-associated protein 1) (LAP1) (RING-type E3 ubiquitin transferase TRAF3) 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: Cytoplasmic E3 ubiquitin ligase that regulates various signaling pathways, such as the NF-kappa-B, mitogen-activated protein kinase (MAPK) and interferon regulatory factor (IRF) pathways, and thus controls a lot of biological processes in both immune and non-immune cell types (PubMed:33148796, PubMed:33608556). In TLR and RLR signaling pathways, acts as an E3 ubiquitin ligase promoting the synthesis of 'Lys-63'-linked polyubiquitin chains on several substrates such as ASC that lead to the activation of the type I interferon response or the inflammasome (PubMed:25847972, PubMed:27980081). Following the activation of certain TLRs such as TLR4, acts as a negative NF-kappa-B regulator, possibly to avoid unregulated inflammatory response, and its degradation via 'Lys-48'-linked polyubiquitination is required for MAPK activation and production of inflammatory cytokines. Alternatively, when TLR4 orchestrates bacterial expulsion, TRAF3 undergoes 'Lys-33'-linked polyubiquitination and subsequently binds to RALGDS, mobilizing the exocyst complex to rapidly expel intracellular bacteria back for clearance (PubMed:27438768). Also acts as a constitutive negative regulator of the alternative NF-kappa-B pathway, which controls B-cell survival and lymphoid organ development. Required for normal antibody isotype switching from IgM to IgG. Plays a role T-cell dependent immune responses. Down-regulates proteolytic processing of NFkB2, and thereby inhibits non-canonical activation of NF-kappa-B. Promotes ubiquitination and proteasomal degradation of MAP3K14.

Subcellular Localization: Cytoplasm . Endosome . Mitochondrion . Note=Undergoes endocytosis together with TLR4 upon LPS signaling (By similarity). Co-localized to mitochondria with TRIM35 (PubMed:32562145).

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.