

# TRAF3 Antibody

Catalog # ASC10352

# Specification

# TRAF3 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IF <u>O13114</u> NP\_663777, 22027618 Human, Mouse Rabbit Polyclonal IgG TRAF3 antibody can be used for the detection of TRAF3 by Western blot at 1 - 2 μg/mL. For immunofluorescence start at 2 μg/mL.

# TRAF3 Antibody - Additional Information

Gene ID 7187 Other Names TRAF3 Antibody: CAP1, LAP1, CAP-1, CRAF1, IIAE5, CD40bp, CAP1, TNF receptor-associated factor 3, TNF receptor-associated factor 3

Target/Specificity TRAF3;

#### **Reconstitution & Storage**

TRAF3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions** TRAF3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# TRAF3 Antibody - Protein Information

#### Name TRAF3 (HGNC:12033)

#### 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:<a href="http://www.uniprot.org/citations/33148796" target="\_blank">33148796</a>, PubMed:<a href="http://www.uniprot.org/citations/33148796" target="\_blank">33148796</a>, PubMed:<a href="http://www.uniprot.org/citations/33608556" target="\_blank">33608556</a>). 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:<a



href="http://www.uniprot.org/citations/25847972" target="\_blank">25847972</a>, PubMed:<a href="http://www.uniprot.org/citations/27980081" target="\_blank">27980081</a>). 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:<a href="http://www.uniprot.org/citations/27438768" target="\_blank">27438768</a>). Acts also 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.

#### **Cellular Location**

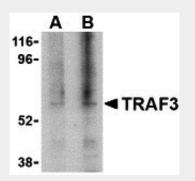
Cytoplasm. Endosome {ECO:0000250|UniProtKB:Q60803} Mitochondrion. Note=Undergoes endocytosis together with TLR4 upon LPS signaling (By similarity). Co-localized to mitochondria with TRIM35 (PubMed:32562145) {ECO:0000250|UniProtKB:Q60803, ECO:0000269|PubMed:32562145}

#### **TRAF3 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

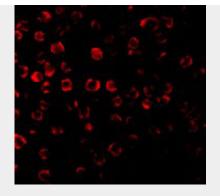
- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### TRAF3 Antibody - Images



Western blot analysis of TRAF3 in 3T3 cell lysate with TRAF3 antibody at (A) 1, and (B) 2 µg/mL.





Immunofluorescence of TRAF3 in 3T3 cells with TRAF3 antibody at 2  $\mu$ g/mL.

# TRAF3 Antibody - Background

TRAF3 Antibody: Tumor necrosis factor (TNF) receptor associated factors (TRAFs) are the major signal transducers for the TNF receptor superfamily and the interleukin-1 receptor/Toll-like receptor (IL-1/TLR) superfamily. TRAF3 was first identified by its interaction with CD40 and the Epstein-Barr virus transforming protein LMP1. Several TRAF3 mRNA splice variants exist and some of these can activate the transcription factor NF-kB. Besides CD40, TRAF3 also interacts with the TRFR superfamily member lymphotoxin-beta receptor (LTbetaR) in association with TRAF2 and the apoptosis inhibitors cIAP1 and Smac. It has been suggested that TRAF3 induces mitochondria-mediated apoptosis upon binding of the TNF family cytokine LIGHT by LTbetaR.

# **TRAF3 Antibody - References**

Arch RH, Gedrich RW, and Thompson CB. Tumor necrosis factor receptor-associated factors (TRAFs) - a family of adaptor proteins that regulate life and death. Genes Dev. 1998; 12:2821-30. Cheng G, Cleary AM, Ye Z, et al. Involvement of CRAF1, a relative of TRAF, in CD40 signaling. Science 1995; 267:1494-8.

Mosialos G, Birkenbach M, Yalamanchili R, et al. The Epstein-Barr virus transforming protein LMP1 engages signaling proteins for the tumor necrosis factor receptor family. Cell 1995; 80:389-99. van Eyndhoven WG, Gamper CJ, Cho E, et al. TRAF-3 mRNA splice-deletion variants encode isoforms that induce NF0kB activation. Mol. Immunol. 1999; 36:647-58.