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TRAF3 Antibody

Catalog # ASC10353

Product Information

Application	WB, ICC, E
Primary Accession	Q13114
Other Accession	NP_663777, 22027618
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	64490
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TRAF3 antibody can be used for the detection of TRAF3 by Western blot at 2 - 4 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL.

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℃ for three months and -20℃, 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.

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: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.
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}

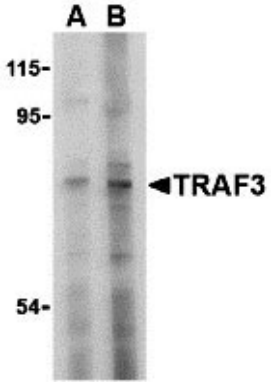
Background

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-κB. 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.

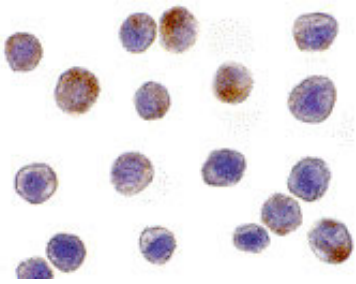
References

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 NF0κB activation. Mol. Immunol. 1999; 36:647-58.

Images



Western blot analysis of TRAF3 in HeLa cell lysate with TRAF3 antibody at (A) 2 and (B) 4 µg/mL.



Immunocytochemistry of TRAF3 in HeLa cells with TRAF3 antibody at 10 µg/mL.