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TRAF6 Antibody

Catalog # ASC10191

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q9Y4K3
Other Accession	NP_004611, 4759254
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	59573
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TRAF6 antibody can be used for detection of TRAF6 by Western blot at 1 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	7189
Other Names	TRAF6 Antibody: RNF85, MGC:3310, RNF85, E3 ubiquitin-protein ligase TRAF6, TNF receptor-associated factor 6
Target/Specificity	TRAF6;
Reconstitution & Storage	TRAF6 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	TRAF6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TRAF6
Synonyms	RNF85
Function	E3 ubiquitin ligase that, together with UBE2N and UBE2V1, mediates the synthesis of 'Lys-63'-linked-polyubiquitin chains conjugated to proteins, such as ECSIT, IKBKG, IRAK1, AKT1 and AKT2 (PubMed:11057907, PubMed:18347055, PubMed:19465916, PubMed:19713527, PubMed:27746020, PubMed:31620128). Also mediates ubiquitination of free/unanchored polyubiquitin chain that leads to MAP3K7 activation (PubMed:19675569). Leads to the activation of NF-kappa-B and JUN

	(PubMed:16378096, PubMed:17135271, PubMed:17703191, PubMed:39920527, PubMed:40973797, PubMed:41747053). Seems to also play a role in dendritic cells (DCs) maturation and/or activation (By similarity). Represses c-Myb-mediated transactivation, in B-lymphocytes (PubMed:18093978, PubMed:18758450). Adapter protein that seems to play a role in signal transduction initiated via TNF receptor, IL-1 receptor and IL-17 receptor (PubMed:12140561, PubMed:19825828, PubMed:8837778). Regulates osteoclast differentiation by mediating the activation of adapter protein complex 1 (AP-1) and NF-kappa-B, in response to RANK-L stimulation (By similarity). Together with MAP3K8, mediates CD40 signals that activate ERK in B-cells and macrophages, and thus may play a role in the regulation of immunoglobulin production (By similarity). Acts as a regulator of the JNK and NF-kappa-B signaling pathways by initiating assembly of heterotypic 'Lys-63'-/'Lys-48'-linked branched ubiquitin chains that are then recognized by TAB2: TRAF6 catalyzes initial 'Lys-63'-linked-polyubiquitin chains that are then branched via 'Lys-48'-linked polyubiquitin by HUWE1 (PubMed:27746020). 'Lys- 63'-/'Lys-48'-linked branched ubiquitin chains protect 'Lys-63'- linkages from CYLD deubiquitination (PubMed:27746020). Participates also in the TCR signaling by ubiquitinating LAT (PubMed:23514740, PubMed:25907557).
Cellular Location	Cytoplasm. Cytoplasm, cell cortex. Nucleus. Lipid droplet {ECO:0000250|UniProtKB:P70196}. Note=Found in the nuclei of some aggressive B-cell lymphoma cell lines as well as in the nuclei of both resting and activated T- and B-lymphocytes. Found in punctate nuclear body protein complexes. Ubiquitination may occur in the cytoplasm and sumoylation in the nucleus. RSAD2/viperin recruits it to the lipid droplet (By similarity).
Tissue Location	Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas

Background

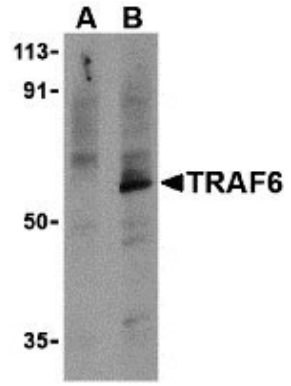
TRAF6 Antibody: Signals from the IL-1 receptor (IL-1R)/Toll-like receptor (TLR) and TNF receptor (TNFR) superfamilies are critical for regulating the function of antigen-presenting cells. Signals transduced by these molecules lead to increased expression and activation of transcription factors such as NF-κB. TNF receptor-associated factor 6 (TRAF6) is unique in that it is a signaling adapter molecule common to both families. TRAF6 is important in cytokine production, dendritic cell (DC) maturation, and the T cell stimulatory capacity of DCs in response to TLR and CD40 ligands. It can be activated in the IL-1R/TLR signaling pathway by IL-1 receptor-associated kinase 1 (IRAK-1) or by other TLR adaptor molecules such as TRIF. Also, it has been shown that TRAF6 can interact directly with TNFR family members CD40 and RANK.

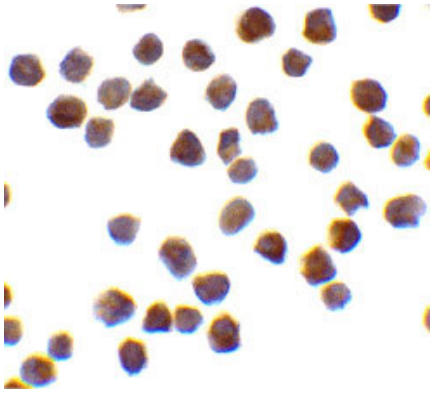
References

Takeda K, Kaisho T, and Akira S. Toll-like receptors. Annu. Rev. Immunol. 2003; 21:335-76.
Wu H. Assembly of post-receptor signaling complexes for the tumor necrosis factor superfamily. Adv. Protein Chem. 2004; 68:225-79.
Wajant H and Scheurich P. Analogies between Drosophila and mammalian TRAF pathways. Prog. Mol. Subcell. Biol. 2004; 34:47-72.
Kobayashi T, Walsh PT, Walsh MC, et al. TRAF6 is a critical factor for dendritic cell maturation and development. Immunity 2003; 19:353-63.

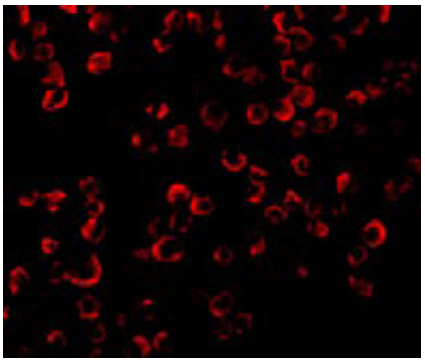
Images

Western blot analysis of TRAF6 in PC-3 cell lysates with TRAF6 antibody at 1 µg/mL in the presence (A) or absence (B) of 1 µg blocking peptide.





Immunocytochemistry of TRAF6 in K562 cells with TRAF6 antibody at 0.5 µg/mL.



Immunofluorescence of TRAF6 in K562 cells with TRAF6 antibody at 20 µg/mL.

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