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TRAF6 Antibody(Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19545c

Product Information

Application	WB, E
Primary Accession	Q9Y4K3
Other Accession	P70196, Q3ZCC3, NP_665802.1
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB40708
Calculated MW	59573
Antigen Region	314-343

Additional Information

Gene ID	7189
Other Names	TNF receptor-associated factor 6, 632-, E3 ubiquitin-protein ligase TRAF6, Interleukin-1 signal transducer, RING finger protein 85, TRAF6, RNF85
Target/Specificity	This TRAF6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 314-343 amino acids from the Central region of human TRAF6.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TRAF6 Antibody(Center) 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). 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

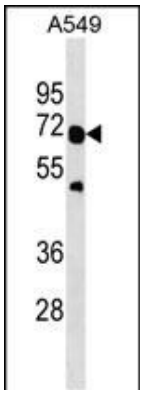
Background

The protein encoded by this gene is a member of the TNF receptor associated factor (TRAF) protein family. TRAF proteins are associated with, and mediate signal transduction from members of the TNF receptor superfamily. This protein mediates the signaling not only from the members of the TNF receptor superfamily, but also from the members of the Toll/IL-1 family. Signals from receptors such as CD40, TNFSF11/RANCE and IL-1 have been shown to be mediated by this protein. This protein also interacts with various protein kinases including IRAK1/IRAK, SRC and PKCzeta, which provides a link between distinct signaling pathways. This protein functions as a signal transducer in the NF-kappaB pathway that activates IkappaB kinase (IKK) in response to proinflammatory cytokines. The interaction of this protein with UBE2N/UBC13, and UBE2V1/UEV1A, which are ubiquitin conjugating enzymes catalyzing the formation of polyubiquitin chains, has been found to be required for IKK activation by this protein. Two alternatively spliced transcript variants encoding identical proteins have been reported. [provided by RefSeq].

References

Silva, L.K., et al. Eur. J. Hum. Genet. 18(11):1221-1227(2010)
Hinz, M., et al. Mol. Cell 40(1):63-74(2010)
Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Stachon, P., et al. PLoS ONE 5 (7), E11589 (2010) :

Images



TRAF6 Antibody (Center) (Cat. #AP19545c) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the TRAF6 antibody detected the TRAF6 protein (arrow).

Citations

- Up-regulated expression of CD147 gene in malignant bone tumor and the possible induction mechanism during osteoclast formation.
- MicroRNA-351 inhibits denervation-induced muscle atrophy by targeting TRAF6.