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TRIM24 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18114a

Product Information

Application	WB, E
Primary Accession	O15164
Other Accession	NP_003843.3
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	116831
Antigen Region	16-45

Additional Information

Gene ID	8805
Other Names	Transcription intermediary factor 1-alpha, TIF1-alpha, 632-, E3 ubiquitin-protein ligase TRIM24, RING finger protein 82, Tripartite motif-containing protein 24, TRIM24, RNF82, TIF1, TIF1A
Target/Specificity	This TRIM24 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 16-45 amino acids from the N-terminal region of human TRIM24.
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	TRIM24 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TRIM24
Synonyms	RNF82, TIF1, TIF1A

Function	Transcriptional coactivator that interacts with numerous nuclear receptors and coactivators and modulates the transcription of target genes. Interacts with chromatin depending on histone H3 modifications, having the highest affinity for histone H3 that is both unmodified at 'Lys-4' (H3K4me0) and acetylated at 'Lys-23' (H3K23ac). Has E3 protein-ubiquitin ligase activity. During the DNA damage response, participates in an autoregulatory feedback loop with TP53. Early in response to DNA damage, ATM kinase phosphorylates TRIM24 leading to its ubiquitination and degradation. After sufficient DNA repair has occurred, TP53 activates TRIM24 transcription, ultimately leading to TRIM24-mediated TP53 ubiquitination and degradation (PubMed:24820418). Plays a role in the regulation of cell proliferation and apoptosis, at least in part via its effects on p53/TP53 levels. Up- regulates ligand-dependent transcription activation by AR, GCR/NR3C1, thyroid hormone receptor (TR) and ESR1. Modulates transcription activation by retinoic acid (RA) receptors, including RARA. Plays a role in regulating retinoic acid-dependent proliferation of hepatocytes (By similarity). Also participates in innate immunity by mediating the specific 'Lys-63'-linked ubiquitination of TRAF3 leading to activation of downstream signal transduction of the type I IFN pathway (PubMed:32324863). Additionally, negatively regulates NLRP3/CASP1/IL- 1beta-mediated pyroptosis and cell migration probably by ubiquitinating NLRP3 (PubMed:33724611).
Cellular Location	Nucleus. Cytoplasm. Mitochondrion. Note=Colocalizes with sites of active transcription. Predominantly nuclear. Translocated from nucleus to mitochondria to mediate antiviral immunity (PubMed:32324863). Localizes to sites of DNA damage (PubMed:25593309).

Background

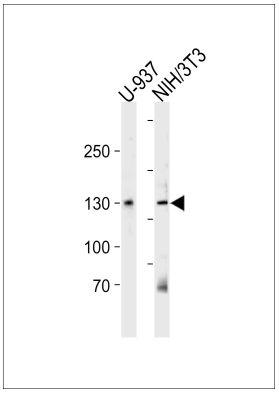
The protein encoded by this gene mediates transcriptional control by interaction with the activation function 2 (AF2) region of several nuclear receptors, including the estrogen, retinoic acid, and vitamin D3 receptors. The protein localizes to nuclear bodies and is thought to associate with chromatin and heterochromatin-associated factors. The protein is a member of the tripartite motif (TRIM) family. The TRIM motif includes three zinc-binding domains - a RING, a B-box type 1 and a B-box type 2 - and a coiled-coil region. Two alternatively spliced transcript variants encoding different isoforms have been described for this gene.

References

Kikuchi, M., et al. Biochim. Biophys. Acta 1793(12):1828-1836(2009)
Lowe, J.K., et al. PLoS Genet. 5 (2), E1000365 (2009) :
Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)
Matsuoka, S., et al. Science 316(5828):1160-1166(2007)
Yondola, M.A., et al. J. Virol. 81(8):4264-4271(2007)

Images

TRIM24 Antibody (N-term) (Cat. #AP18114a) western blot analysis in U-937,mouse NIH/3T3 cell line lysates (35ug/lane).This demonstrates the TRIM24 antibody detected the TRIM24 protein (arrow).



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