10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-TIF1 alpha Antibody

Catalog # AP51587

Product Information

Application	WB, IHC
Primary Accession	O15164
Reactivity	Human, Mouse, Pig, Bovine, Dog, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	116831

Additional Information

Gene ID	8805
Other Names	RNF82; TIF1; TIF1A; Transcription intermediary factor 1-alpha; TIF1-alpha; E3 ubiquitin-protein ligase TRIM24; RING finger protein 82; Tripartite motif-containing protein 24
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human TIF1 alpha. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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).

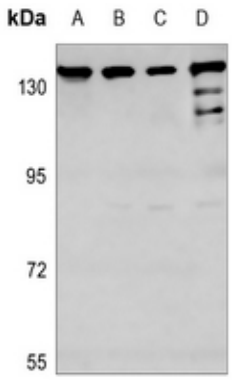
Cellular Location

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).

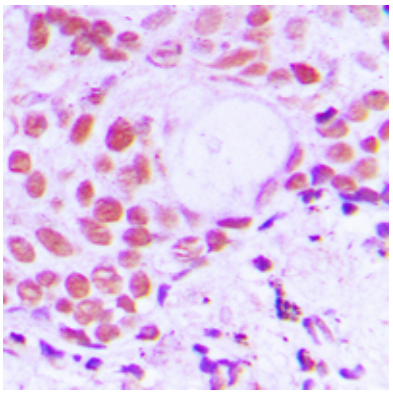
References

Thenot S.,et al.J. Biol. Chem. 272:12062-12068(1997).
Venturini L.,et al.Oncogene 18:1209-1217(1999).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Scherer S.W.,et al.Science 300:767-772(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Images



Western blot analysis of TIF1 alpha expression in Jurkat (A), A549 (B), H446 (C), mouse liver (D) whole cell lysates. (Predicted band size: 116 kD; Observed band size: 140 kD)



Immunohistochemical analysis of TIF1 alpha staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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