

TRIM24 Antibody
Catalog # ASC11666**Specification****TRIM24 Antibody - Product Information**

Application	IF
Primary Accession	O15164
Other Accession	NP_056989 , 8805
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 112, 116
Application Notes	Observed: 108, 1 of 2 isoforms KDa TRIM24 antibody can be used for detection of TRIM24 by Western blot at 0.5 - 1 µg/mL.

TRIM24 Antibody - Additional Information

Gene ID 8805

Target/Specificity

TRIM24 antibody was raised against a 19 amino acid peptide near the center of human TRIM24. The immunogen is located within amino acids 530 - 580 of TRIM24.

Reconstitution & Storage

TRIM24 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

TRIM24 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TRIM24 Antibody - 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](http://www.uniprot.org/citations/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). Participates also 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

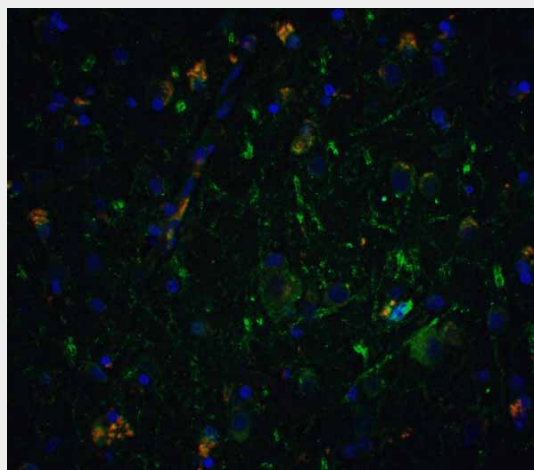
Nucleus. Cytoplasm. Mitochondrion. Note=Colocalizes with sites of active transcription. Predominantly nuclear. Translocated from nucleus to mitochondria to mediate antiviral immunity (PubMed:32324863). Localizes to sites of DNA damage (PubMed:25593309).

TRIM24 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TRIM24 Antibody - Images



Immunofluorescence of Neurturin in human brain tissue with Neurturin antibody at 5 µg/ml.

TRIM24 Antibody - Background

TRIM24 Antibody: TRIM24 (TIF1), a member of the tripartite motif (TRIM) family, plays a role in the regulation of cell proliferation and apoptosis. TRIM24 localizes to nuclear bodies and is thought to associate with chromatin and heterochromatin-associated factors. The TRIM motif includes three zinc-binding domains (RING, B-box type 1 and B-box type 2) and a coiled-coil region. TIF1 mediates

transcriptional events by interactions with the AF2 region of several nuclear receptors, such as the estrogen, retinoic acid and vitamin D3 receptors. Defects in TRIM24 are a cause of thyroid papillary carcinoma (TPC).

TRIM24 Antibody - References

Fraser RA, Heard DJ, Adam S, et al. The putative cofactor TIF1 is a protein kinase that is hyperphosphorylated upon interaction with liganded nuclear receptors. *J. Biol. Chem.* 1998; 273:16199-204.

Tisserand J, Khetchoumian K, Thibault C, et al. Tripartite motif 24 (Trim24/Tif1a) tumor suppressor protein is a novel negative regulator of interferon (IFN)/signal transducers and activators of transcription (STAT) signaling pathway acting through retinoic acid receptor α (Rara) inhibition. *J. Biol. Chem.* 2011; 286:33369-79.

Herquel B, Ouararhni K, Khetchoumian K, et al. Transcription cofactors TRIM24, TRIM28, and TRIM33 associate to form regulatory complexes that suppress murine hepatocellular carcinoma. *Proc. Natl. Acad. Sci. USA* 2011; 108:8212-7.

Klugbauer S and Rabes HM. The transcription co-activator HTIF1 and a related protein are fused to the RET receptor tyrosine kinase in childhood papillary thyroid carcinomas. *Oncogene* 1999;18:4388-93.