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TRIM25 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16857c

Product Information

Application	WB, E
Primary Accession	Q14258
Other Accession	NP_005073.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	70973
Antigen Region	277-306

Additional Information

Gene ID	7706
Other Names	E3 ubiquitin/ISG15 ligase TRIM25, 632n3, Estrogen-responsive finger protein, RING finger protein 147, Tripartite motif-containing protein 25, Ubiquitin/ISG15-conjugating enzyme TRIM25, Zinc finger protein 147, TRIM25, EFP, RNF147, ZNF147
Target/Specificity	This TRIM25 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 277-306 amino acids from the Central region of human TRIM25.
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	TRIM25 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TRIM25
Synonyms	EFP {ECO:0000303|PubMed:8248217}, RNF147

Function	Functions as a ubiquitin E3 ligase and as an ISG15 E3 ligase (PubMed:16352599). Involved in innate immune defense against viruses by mediating ubiquitination of RIGI and IFIH1 (PubMed:17392790, PubMed:29357390, PubMed:30193849, PubMed:31710640, PubMed:33849980, PubMed:36045682, PubMed:40719442). Mediates 'Lys-63'-linked polyubiquitination of the RIGI N-terminal CARD-like region and may play a role in signal transduction that leads to the production of interferons in response to viral infection (PubMed:17392790, PubMed:23950712). Mediates 'Lys-63'-linked polyubiquitination of IFIH1 (PubMed:30193849). Promotes ISGylation of 14-3-3 sigma (SFN), an adapter protein implicated in the regulation of a large spectrum signaling pathway (PubMed:16352599, PubMed:17069755). Mediates estrogen action in various target organs (PubMed:22452784). Mediates the ubiquitination and subsequent proteasomal degradation of ZFHX3 (PubMed:22452784). Plays a role in promoting the restart of stalled replication forks via interaction with the KHDC3L-OOEP scaffold and subsequent ubiquitination of BLM, resulting in the recruitment and retainment of BLM at DNA replication forks (By similarity). Plays an essential role in the antiviral activity of ZAP/ZC3HAV1; an antiviral protein which inhibits the replication of certain viruses. Mechanistically, mediates 'Lys-63'-linked polyubiquitination of ZAP/ZC3HAV1 that is required for its optimal binding to target mRNA (PubMed:28060952, PubMed:28202764). Also mediates the ubiquitination of various substrates implicated in stress granule formation, nonsense- mediated mRNA decay, nucleoside synthesis and mRNA translation and stability (PubMed:36067236). Participates in autophagy suppression by ubiquitinating and degrading p62/SQSTM1 (PubMed:40542578).
Cellular Location	Cytoplasm. Cytoplasm, Stress granule. Nucleus {ECO:0000250|UniProtKB:Q61510}
Tissue Location	Expressed in breast tumors (at protein level). Ubiquitous.

Background

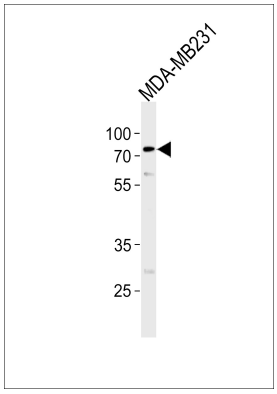
The protein encoded by this gene is a member of the tripartite motif (TRIM) family. The TRIM motif includes three zinc-binding domains, a RING, a B-box type 1 and a B-box type 2, and a coiled-coil region. The protein localizes to the cytoplasm. The presence of potential DNA-binding and dimerization-transactivation domains suggests that this protein may act as a transcription factor, similar to several other members of the TRIM family. Expression of the gene is upregulated in response to estrogen, and it is thought to mediate estrogen actions in breast cancer as a primary response gene.

References

Dai, H., et al. Oncol. Rep. 23(3):795-799(2010)
Zhao, J., et al. BMC Med. Genet. 11, 96 (2010) :
Gack, M.U., et al. Cell Host Microbe 5(5):439-449(2009)
Ludwig, S., et al. Cell Host Microbe 5(5):420-421(2009)
Dai, H., et al. Oncol. Rep. 21(2):395-401(2009)

Images

TRIM25 Antibody (Center) (Cat. #AP16857c) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the TRIM25 antibody detected the TRIM25 protein (arrow).



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