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TRIM27 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56376

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	P14373
Reactivity	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58490
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TRIM27
Epitope Specificity	65-160/513
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Nucleus; PML body. Nuclear or cytoplasmic depending on the cell type (By similarity). Colocalized with PML and EIF3S6 in nuclear bodies.
SIMILARITY	Belongs to the TRIM/RBCC family. Contains 1 B box-type zinc finger. Contains 1 B30.2/SPRY domain. Contains 1 RING-type zinc finger.
SUBUNIT	Homomultimerizes. Interacts with PML, EIF3S6, EPC1, CHD4 and EID1. Interacts with MAGED4, MAGEF1 and MAGEL2.
DISEASE	Defects in TRIM27 are a cause of thyroid papillary carcinoma (TPC) [MIM:188550]. TPC is a common tumor of the thyroid that typically arises as an irregular, solid or cystic mass from otherwise normal thyroid tissue. Papillary carcinomas are malignant neoplasm characterized by the formation of numerous, irregular, finger-like projections of fibrous stroma that is covered with a surface layer of neoplastic epithelial cells. Note=A chromosomal aberration involving TRIM27/RFP is found in thyroid papillary carcinomas. Translocation t(6;10)(p21.3;q11.2) with RET. The translocation generates TRIM27/RET and delta TRIM27/RET oncogenes.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes 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. This protein localizes to the nuclear matrix. It interacts with the enhancer of polycomb protein and represses gene transcription. It is also thought to be involved in the differentiation of male germ cells. Fusion of the N-terminus of this protein with the truncated C-terminus of the RET gene product has been shown to result in production of the ret transforming protein. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	5987
Other Names	Zinc finger protein RFP, 2.3.2.27, RING finger protein 76, RING-type E3 ubiquitin transferase TRIM27, Ret finger protein, Tripartite motif-containing protein 27, TRIM27, RFP, RNF76
Target/Specificity	Expressed in testis namely within the seminiferous tubules.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TRIM27 {ECO:0000303|PubMed:22128329, ECO:0000312|HGNC:HGNC:9975}
Function	E3 ubiquitin-protein ligase that mediates ubiquitination of various substrates and thereby plays a role in diffent processes including proliferation, innate immunity, apoptosis, immune response or autophagy (PubMed:22829933, PubMed:24144979, PubMed:29688809, PubMed:36111389). Ubiquitinates PIK3C2B and inhibits its activity by mediating the formation of 'Lys-48'-linked polyubiquitin chains; the function inhibits CD4 T-cell activation. Acts as a regulator of retrograde transport: together with MAGEL2, mediates the formation of 'Lys-63'-linked polyubiquitin chains at 'Lys-220' of WASHC1, leading to promote endosomal F-actin assembly (PubMed:23452853). Has a transcriptional repressor activity by cooperating with EPC1. Induces apoptosis by activating Jun N-terminal kinase and p38 kinase and also increases caspase-3-like activity independently of mitochondrial events. May function in male germ cell development. Has DNA-binding activity and preferentially bound to double-stranded DNA. Forms a complex with and ubiquitinates the ubiquitin-specific protease USP7, which in turn deubiquitinates RIPK1 resulting in the positive regulation of TNF-alpha-induced apoptosis (PubMed:24144979). In addition, acts with USP7 or PTPN11 as an inhibitor of the antiviral signaling pathway by promoting kinase TBK1 ubiquitination and degradation (PubMed:26358190, PubMed:29688809). Acts as a negative regulator of NOD2 signaling by mediating ubiquitination of NOD2, promoting its degradation by the proteasome (PubMed:22829933). Alternatively, facilitates mitophagy via stabilization of active TBK1 (PubMed:36111389). Negatively regulates autophagy flux under basal conditions by directly polyubiquitinating ULK1 (PubMed:35670107). During starvation-induced autophagy, catalyzes non-degradative ubiquitination of the kinase STK38L promoting its activation and phosphorylation of ULK1 leading to its ubiquitination and degradation to restrain the amplitude and duration of autophagy (PubMed:35670107).
Cellular Location	Nucleus. Cytoplasm. Nucleus, PML body. Early endosome. Mitochondrion. Note=Nuclear or cytoplasmic depending on the cell type (By similarity). Colocalized with PML and EIF3S6 in nuclear bodies. Recruited to retromer-containing endosomes via interaction with MAGEL2 (PubMed:23452853). Co-localizes with p62/SQSTM1 and TBK1 in cytoplasmic structures that are closely associated with the mitochondria (PubMed:36111389). {ECO:0000250, ECO:0000269|PubMed:23452853,

ECO:0000269|PubMed:36111389}

Tissue Location	Expressed in testis namely within the seminiferous tubules.

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