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TANK Rabbit pAb

Catalog # AP97273

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O95271
Other Accession	O95271
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	142039
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TANK
Epitope Specificity	151-260/425
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 C2H2-type zinc finger.
SUBUNIT	Interacts with TBK1 (via TRAF-C domain). Interacts with TRAF1 (via TRAF-C domain). Interacts with TRAF2 (via TRAF-C domain); the interaction is disrupted by the phosphorylation of TANK by IKBKE. Interacts with TRAF3 (via TRAF-C domain); the interaction with TRAF3 is weaker than the interactions with TRAF1 and TRAF3. Interacts with IKBKG; the interaction is enhanced by IKBKE and TBK1. Part of a ternary complex consisting of TANK, IKBKB and IKBKG.
Post-translational modifications	Phosphorylated by IKBKE.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	TANK was initially identified as a novel TRAF-interacting protein that regulated TRAF-mediated signal transduction. Specifically, ligand binding by surface receptors in the tumor necrosis factor (TNF) receptor and Toll/interleukin-1 (IL-1) receptor families lead to the formation of a TRAF/TANK complex that mediates the activation of the transcription factor NF-kappaB. TANK is found in the cytoplasm and can bind to TRAF1, TRAF2, or TRAF3, thereby inhibiting TRAF function by sequestering the TRAFs in a latent state in the cytoplasm. For example, this protein can block TRAF2 binding to LMP1, the Epstein Barr virus transforming protein, and inhibit LMP1-mediated NF kappa B activation.

Additional Information

Gene ID	8658
Other Names	ARTD5; PARP-5a; PARP5A; PARPL; TIN1; TINF1; TNKS1; pART5; 4930554K12Rik; D130072O21Rik; TANK1; mTNKS1; TNKS1_HUMAN; TNKS; ADP-ribosyltransferase diphtheria toxin-like 5 (ARTD5); Poly [ADP-ribose] polymerase 5A; Protein poly-ADP-ribosyltransferase tankyrase-1; TNKS-1;

	TRF1-interacting ankyrin-related ADP-ribose polymerase; Tankyrase I; Tankyrase-1 (TANK1); 2.4.2.30; TNKS1_MOUSE; TRF1-interacting ankyrin-related ADP-ribose polymerase 1 (Tankyrase I); Q8BND2_MOUSE; tankyrase; tankyrase, TRF1-interacting ankyrin-related ADP-ribose polymerase; TRF1-interacting ankyrin-related ADP-ribose polymerase 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	TNKS (HGNC:11941)
Function	Poly-ADP-ribosyltransferase involved in various processes such as Wnt signaling pathway, telomere length and vesicle trafficking (PubMed:10988299, PubMed:11739745, PubMed:16076287, PubMed:19759537, PubMed:21478859, PubMed:22864114, PubMed:23622245, PubMed:25043379, PubMed:28619731). Acts as an activator of the Wnt signaling pathway by mediating poly-ADP-ribosylation (PARsylation) of AXIN1 and AXIN2, 2 key components of the beta-catenin destruction complex: poly-ADP- ribosylated target proteins are recognized by RNF146, which mediates their ubiquitination and subsequent degradation (PubMed:19759537, PubMed:21478859). Also mediates PARsylation of BLZF1 and CASC3, followed by recruitment of RNF146 and subsequent ubiquitination (PubMed:21478859). Mediates PARsylation of TERF1, thereby contributing to the regulation of telomere length (PubMed:11739745). Involved in centrosome maturation during prometaphase by mediating PARsylation of HEPACAM2/MIKI (PubMed:22864114). May also regulate vesicle trafficking and modulate the subcellular distribution of SLC2A4/GLUT4-vesicles (PubMed:10988299). May be involved in spindle pole assembly through PARsylation of NUMA1 (PubMed:16076287). Stimulates 26S proteasome activity (PubMed:23622245).
Cellular Location	Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus, nuclear pore complex. Chromosome, telomere. Cytoplasm, cytoskeleton, spindle pole. Note=Associated with the Golgi and with juxtanuclear SLC2A4/GLUT4-vesicles (PubMed:22864114). A minor proportion is also found at nuclear pore complexes and around the pericentriolar matrix of mitotic centromeres (PubMed:10523501). During interphase, a small fraction of TNKS is found in the nucleus, associated with TERF1 (PubMed:12768206). Localizes to spindle poles at mitosis onset via interaction with NUMA1 (PubMed:12080061)
Tissue Location	Ubiquitous; highest levels in testis.

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