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TRIM7 Rabbit pAb

Catalog # AP96985

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9C029
Other Accession	Q9C029
Reactivity	Human
Predicted	Rat, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56631
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TRIM7/RNF90
Epitope Specificity	255-350/511
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
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	Forms homodimers and heterodimers. Interacts with GYG and DES.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The tripartite motif (TRIM) family of proteins are characterized by a conserved TRIM domain that includes a coiled-coil region, a B-box type zinc finger, one RING finger and three zinc-binding domains. TRIM7 (tripartite motif-containing 7), also known as RNF90 or GNIP, is a 511 amino acid protein that belongs to the TRIM family and contains one RING-type zinc finger, one B box-type zinc finger and one SPRY domain. Expressed in placenta and skeletal muscle and present at lower levels in brain, heart and pancreas, TRIM7 localizes to both the cytoplasm and the nucleus where it exists as dimers and is thought to participate in the initiation of glycogen synthesis. Multiple isoforms of TRIM7 exist due to alternative splicing events.

Additional Information

Gene ID	81786
Other Names	GNIP; RNF90; TRIM7_HUMAN; TRIM7; Glycogenin-interacting protein; RING finger protein 90; Tripartite motif-containing protein 7; 2.3.2.27; tripartite motif containing 7; tripartite motif-containing 7; tripartite motif protein TRIM7
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	TRIM7
Synonyms	GNIP, RNF90
Function	E3 ubiquitin-protein ligase that have both tumor-promoting and tumor-suppressing activities and functions in several biological processes including innate immunity, regulation of ferroptosis as well as cell proliferation and migration (PubMed:25851810, PubMed:32853985, PubMed:34062120). Acts as an antiviral effector against multiple viruses by targeting specific viral proteins for ubiquitination and degradation including norovirus NTPase protein or SARS-CoV-2 NSP5 and NSP8 proteins (PubMed:34062120, PubMed:35982226). Mechanistically, recognizes the C-terminal glutamine-containing motif usually generated by viral proteases that process the polyproteins and trigger their ubiquitination and subsequent degradation (PubMed:35867826, PubMed:35893676, PubMed:35982226). Mediates 'Lys-63'-linked polyubiquitination and stabilization of the JUN coactivator RNF187 in response to growth factor signaling via the MEK/ERK pathway, thereby regulating JUN transactivation and cellular proliferation (PubMed:25851810). Promotes the TLR4-mediated signaling activation through its E3 ligase domain leading to production of pro-inflammatory cytokines and type I interferon (By similarity). Also plays a negative role in the regulation of exogenous cytosolic DNA virus-triggered immune response. Mechanistically, enhances the 'Lys-48'-linked ubiquitination of STING1 leading to its proteasome-dependent degradation (PubMed:32126128). Mediates the ubiquitination of the SIN3- HDAC chromatin remodeling complex component BRMS1 (PubMed:32853985). Modulates NCOA4-mediated ferritinophagy and ferroptosis in glioblastoma cells by ubiquitinating NCOA4, leading to its degradation (PubMed:36067704).
Cellular Location	Nucleus. Cytoplasm. Golgi apparatus
Tissue Location	Skeletal muscle and placenta, at lower levels in heart, brain and pancreas. Isoform 1 is widely expressed with high level in testis, kidney and heart.

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