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TRIM7 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11979a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9C029
Other Accession	Q923T7, NP_203128.1
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB29694
Calculated MW	56631
Antigen Region	67-95

Additional Information

Gene ID	81786
Other Names	Tripartite motif-containing protein 7, Glycogenin-interacting protein, RING finger protein 90, TRIM7, GNIP, RNF90
Target/Specificity	This TRIM7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 67-95 amino acids from the N-terminal region of human TRIM7.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	TRIM7 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

Background

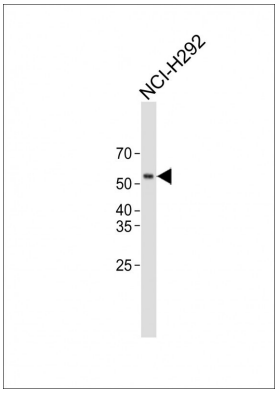
The protein encoded by this gene is a member of the tripartite motif (TRIM) family. The TRIM motif includes three zinc-binding domains, a RING, a B-box type 1, a B-box type 2, and a coiled-coil region. The protein localizes to both the nucleus and the cytoplasm, and may represent a participant in the initiation of glycogen synthesis. Multiple transcript variants have been found for this gene, and some of them encode the same isoform. [provided by RefSeq].

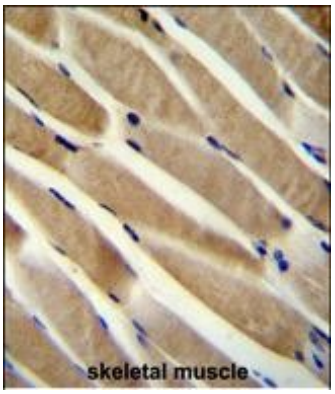
References

Zhai, L., et al. Arch. Biochem. Biophys. 421(2):236-242(2004)
Skurat, A.V., et al. J. Biol. Chem. 277(22):19331-19338(2002)
Reymond, A., et al. EMBO J. 20(9):2140-2151(2001)

Images

All lanes: Anti-TRIM7 Antibody (N-term) at 1:500 dilution + NCI-H292 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 57 KDa Blocking/Dilution buffer: 5% NFDM/TBST.





TRIM7 Antibody (N-term) (Cat. #AP11979a)immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of TRIM7 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.