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KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI2421

Product Information

Application	WB, FC
Primary Accession	Q9C029
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	25GB690
Calculated MW	56631
Gene Name	TRIM7
Aliases	TRIM7; Tripartite Motif Containing 7; GNIP; Glycogenin-Interacting Protein; E3 Ubiquitin-Protein Ligase TRIM7; Tripartite Motif Protein TRIM7; RING Finger Protein 90; Tripartite Motif-Containing Protein 7; Tripartite Motif-Containing 7; EC 2.3.2.27
Immunogen	Recombinant protein of human TRIM7

Additional Information

Gene ID	81786
Other Names	E3 ubiquitin-protein ligase TRIM7, 2.3.2.27, Glycogenin-interacting protein, RING finger protein 90, Tripartite motif-containing protein 7, TRIM7, GNIP, RNF90

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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