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KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI2421

Specification

KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	Q9C029
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**Predicted, 57 kDa; observed, 57 kDa KDa**
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**

KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody - 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

KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/35867826"

target="_blank">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

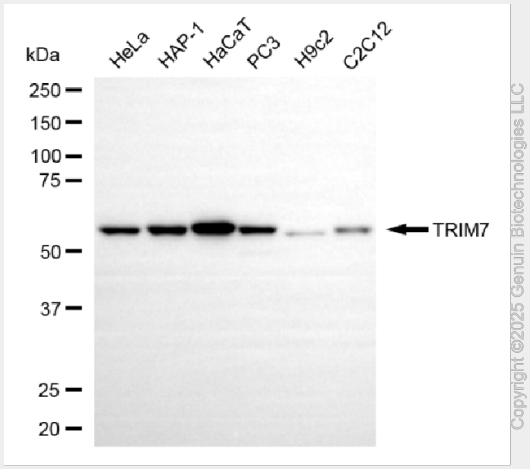
Tissue Location
Skeletal muscle and placenta, at lower levels in heart, brain and pancreas. Isoform 1 is widely expressed with high level in testis, kidney and heart.

KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody - Images



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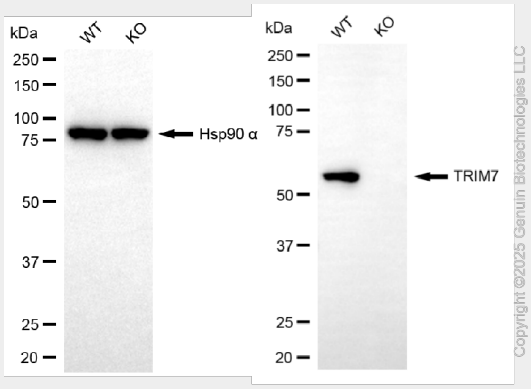
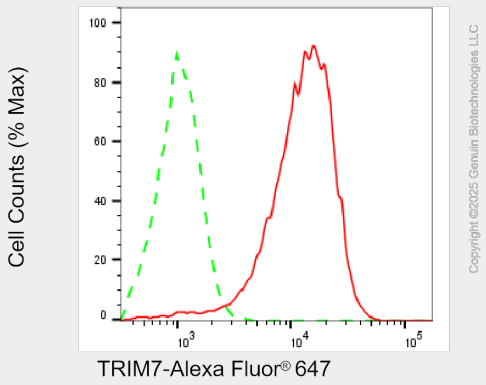
Western blotting analysis using anti-TRIM7 antibody (Cat#AGI2421). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-TRIM7 antibody (Cat#AGI2421, 1:2,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-TRIM7 antibody (Cat#AGI2421). TRIM7 expression in wild type (WT) and TRIM7 knockout (KO) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-TRIM7 antibody (Cat#AGI2421, 1:2,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Flow cytometric analysis of TRIM7 expression in HeLa cells using anti-TRIM7 antibody (Cat#AGI2421, 1:2,000). Green, isotype control; red, TRIM7.