

KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody Mouse monoclonal antibody Catalog # AGI2421

Specification

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

Application Primary Accession Reactivity Clonality Isotype Calculated MW Gene Name Aliases WB, FC <u>O9C029</u> Rat, Human, Mouse Monoclonal Mouse IgG1 Predicted, 57 kDa; observed, 57 kDa KDa TRIM7 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 Recombinant protein of human TRIM7

Immunogen

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.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

KO-Validated Anti-TRIM7 Mouse Monoclonal Antibody - Images





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 μ g 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.