10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-GNIP / TRIM7 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1487a

Specification

Goat Anti-GNIP / TRIM7 Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	Q9C029
Other Accession	NP_203128, 81786
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**56631**

Goat Anti-GNIP / TRIM7 Antibody - Additional Information

Gene ID 81786

Other Names
Tripartite motif-containing protein 7, Glycogenin-interacting protein, RING finger protein 90, TRIM7, GNIP, RNF90

Dilution
WB~~1:1000
IHC~~1:100~500
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-GNIP / TRIM7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-GNIP / TRIM7 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: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.

Goat Anti-GNIP / TRIM7 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

Goat Anti-GNIP / TRIM7 Antibody - Images

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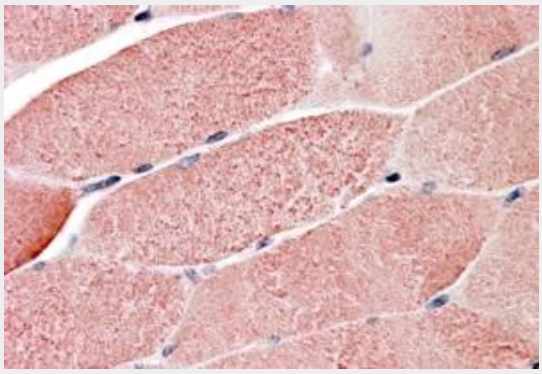
AF1487a (1 µg/ml) staining of Human Skeletal Muscle lysate (RIPA buffer, 30 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



AF1487a (3.8 µg/ml) staining of paraffin embedded Human Skeletal Muscle. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-GNIP / TRIM7 Antibody - 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.

Goat Anti-GNIP / TRIM7 Antibody - References

The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Gerhard DS, et al. Genome Res, 2004 Oct. PMID 15489334.
Structure-function analysis of GNIP, the glycogenin-interacting protein. Zhai L, et al. Arch Biochem Biophys, 2004 Jan 15. PMID 14984203.
Complete sequencing and characterization of 21,243 full-length human cDNAs. Ota T, et al. Nat Genet, 2004 Jan. PMID 14702039.
Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Strausberg RL, et al. Proc Natl Acad Sci U S A, 2002 Dec 24. PMID 12477932.
GNIP, a novel protein that binds and activates glycogenin, the self-glucosylating initiator of glycogen biosynthesis. Skurat AV, et al. J Biol Chem, 2002 May 31. PMID 11916970.