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Goat Anti-RNF7 Antibody
Peptide-affinity purified goat antibody
Catalog # AF2227a

Specification

Goat Anti-RNF7 Antibody - Product Information

Application	**WB**
Primary Accession	Q9UBF6
Other Accession	NP_055060, 9616, 19823 (mouse)
Reactivity	**Human**
Predicted	**Mouse**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**12683**

Goat Anti-RNF7 Antibody - Additional Information

Gene ID 9616

Other Names
RING-box protein 2, Rbx2, CKII beta-binding protein 1, CKBBP1, RING finger protein 7, Regulator of cullins 2, Sensitive to apoptosis gene protein, RNF7, RBX2, ROC2, SAG

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-RNF7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-RNF7 Antibody - Protein Information

Name RNF7 (HGNC:10070)

Function
Catalytic component of multiple cullin-5-RING E3 ubiquitin- protein ligase complexes (ECS complexes), which mediate the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:21980433, PubMed:33268465, PubMed:<a href="http://www.uniprot.org/citations/38418882"

target="_blank">38418882, PubMed:38574733). It is thereby involved in various biological processes, such as cell cycle progression, signal transduction and transcription (PubMed:21980433, PubMed:33268465, PubMed:38418882, PubMed:38574733). The functional specificity of the E3 ubiquitin- protein ligase ECS complexes depend on the variable SOCS box-containing substrate recognition component (PubMed:21980433, PubMed:33268465). Within ECS complexes, RNF7/RBX2 recruits the E2 ubiquitination enzyme to the complex via its RING-type and brings it into close proximity to the substrate (PubMed:34518685). Catalytic subunit of various SOCS- containing ECS complexes, such as the ECS(SOCS7) complex, that regulate reelin signaling by mediating ubiquitination and degradation of DAB1 (By similarity). The ECS(SOCS2) complex mediates the ubiquitination and subsequent proteasomal degradation of phosphorylated EPOR and GHR (PubMed:21980433, PubMed:25505247). Promotes ubiquitination and degradation of NF1, thereby regulating Ras protein signal transduction (By similarity). As part of the ECS(ASB9) complex, catalyzes ubiquitination and degradation of CKB (PubMed:33268465). The ECS(SPSB3) complex catalyzes ubiquitination of nuclear CGAS (PubMed:38418882). As part of some ECS complex, catalyzes 'Lys-11'-linked ubiquitination and degradation of BTRC (PubMed:27910872). ECS complexes and ARIH2 collaborate in tandem to mediate ubiquitination of target proteins; ARIH2 mediating addition of the first ubiquitin on CRLs targets (PubMed:34518685, PubMed:38418882). Specifically catalyzes the neddylation of CUL5 via its interaction with UBE2F (PubMed:19250909). Does not catalyze neddylation of other cullins (CUL1, CUL2, CUL3, CUL4A or CUL4B) (PubMed:19250909). May play a role in protecting cells from apoptosis induced by redox agents (PubMed:10082581).

Cellular Location
Cytoplasm. Nucleus

Tissue Location
Expressed in heart, liver, skeletal muscle and pancreas. At very low levels expressed in brain, placenta and lung

Goat Anti-RNF7 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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- Flow Cytomety
- Cell Culture

Goat Anti-RNF7 Antibody - Images

AF2227a (1 µg/ml) staining of Human Heart lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-RNF7 Antibody - Background

The protein encoded by this gene is a highly conserved ring finger protein. It is an essential subunit of SKP1-cullin/CDC53-F box protein ubiquitin ligases, which are a part of the protein degradation machinery important for cell cycle progression and signal transduction. This protein interacts with, and is a substrate of, casein kinase II (CSNK2A1/CKII). The phosphorylation of this protein by CSNK2A1 has been shown to promote the degradation of IkappaBalpha (CHUK/IKK-alpha/IKBKA) and p27Kip1(CDKN1B). Alternatively spliced transcript variants encoding distinct isoforms have been reported.

Goat Anti-RNF7 Antibody - References

Validation of SAG/RBX2/ROC2 E3 ubiquitin ligase as an anticancer and radiosensitizing target. Jia L, et al. Clin Cancer Res, 2010 Feb 1. PMID 20103673.
E2-RING expansion of the NEDD8 cascade confers specificity to cullin modification. Huang DT, et al. Mol Cell, 2009 Feb 27. PMID 19250909.
Regulation of heat shock-induced apoptosis by sensitive to apoptosis gene protein. Lee SJ, et al. Free Radic Biol Med, 2008 Jul 15. PMID 18454945.
SAG/ROC2/RBX2 is a HIF-1 target gene that promotes HIF-1 alpha ubiquitination and degradation. Tan M, et al. Oncogene, 2008 Feb 28. PMID 17828303.
SAG/ROC-SCF beta-TrCP E3 ubiquitin ligase promotes pro-caspase-3 degradation as a mechanism of apoptosis protection. Tan M, et al. Neoplasia, 2006 Dec. PMID 17217622.