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RNF7 Rabbit mAb

Catalog # AP78829

Product Information

Application	WB, IHC-P, IF, ICC
Primary Accession	Q9UBF6
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Immunogen	A synthesized peptide derived from human RNF7
Purification	Affinity Chromatography
Calculated MW	12683

Additional Information

Gene ID	9616
Other Names	RNF7
Dilution	WB~~1/500-1/1000 IHC-P~~N/A IF~~1:50~200 ICC~~N/A
Format	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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:38418882, PubMed:38574733, PubMed:35512830, PubMed:40440427, PubMed:40963025). 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 the ECS(RAB40C) complex, mediates ANKRD28 ubiquitination and degradation, thereby inhibiting protein phosphatase 6 (PP6) complex activity and focal adhesion assembly during cell migration (PubMed:35512830). The ECS(ASB7) complex acts a negative regulator of H3K9me3 histone mark by mediating ubiquitination and degradation of SUV39H1 (PubMed:40440427). 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). As part of the ECS(LRRC58) complex, mediates CDO1 ubiquitination and degradation, regulating cysteine catabolism (PubMed:40963025). 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).

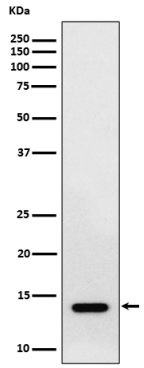
Cellular Location

Cytoplasm. Nucleus

Tissue Location

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

Images



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