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FBXW7 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21277a

Product Information

Application	WB, E
Primary Accession	Q969H0
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB51853
Calculated MW	79663

Additional Information

Gene ID	55294
Other Names	F-box/WD repeat-containing protein 7, Archipelago homolog, hAgo, F-box and WD-40 domain-containing protein 7, F-box protein FBX30, SEL-10, hCdc4, FBXW7 (HGNC:16712)
Target/Specificity	This FBXW7 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 177-208 amino acids from the N-terminal region of human FBXW7.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FBXW7 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FBXW7 (HGNC:16712)
Function	Substrate recognition component of a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:17434132,

PubMed:22748924, PubMed:26976582, PubMed:28727686, PubMed:34741373, PubMed:35395208). Recognizes and binds phosphorylated sites/phosphodegrons within target proteins and thereafter brings them to the SCF complex for ubiquitination (PubMed:17434132, PubMed:22748924, PubMed:26774286, PubMed:26976582, PubMed:28727686, PubMed:34741373). Identified substrates include cyclin-E (CCNE1 or CCNE2), DISC1, JUN, MYC, NOTCH1 released notch intracellular domain (NICD), NFE2L1, NOTCH2, MCL1, MLST8, RICTOR, and probably PSEN1 (PubMed:11565034, PubMed:11585921, PubMed:12354302, PubMed:14739463, PubMed:15103331, PubMed:17558397, PubMed:17873522, PubMed:22608923, PubMed:22748924, PubMed:25775507, PubMed:25897075, PubMed:26976582, PubMed:28007894, PubMed:28727686, PubMed:29149593, PubMed:34102342). Acts as a negative regulator of JNK signaling by binding to phosphorylated JUN and promoting its ubiquitination and subsequent degradation (PubMed:14739463). Involved in bone homeostasis and negative regulation of osteoclast differentiation (PubMed:29149593). Regulates the amplitude of the cyclic expression of hepatic core clock genes and genes involved in lipid and glucose metabolism via ubiquitination and proteasomal degradation of their transcriptional repressor NR1D1; CDK1-dependent phosphorylation of NR1D1 is necessary for SCF(FBXW7)-mediated ubiquitination (PubMed:27238018). Also able to promote 'Lys-63'-linked ubiquitination in response to DNA damage (PubMed:26774286). The SCF(FBXW7) complex facilitates double-strand break repair following phosphorylation by ATM: phosphorylation promotes localization to sites of double-strand breaks and 'Lys-63'-linked ubiquitination of phosphorylated XRCC4, enhancing DNA non-homologous end joining (PubMed:26774286).

Cellular Location

[Isoform 1]: Nucleus, nucleoplasm. Chromosome Note=Localizes to site of double-strand breaks following phosphorylation by ATM. [Isoform 3]: Nucleus, nucleolus

Tissue Location

[Isoform 1]: Widely expressed.

Background

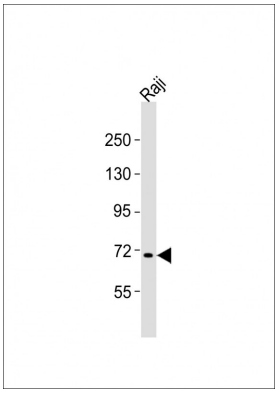
Substrate recognition component of an SCF (SKP1-CUL1-F- box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins. Recognizes and binds phosphorylated sites/phosphodegrons within target proteins and thereafter bring them to the SCF complex for ubiquitination. Identified substrates include cyclin-E, MYC, NOTCH1 released notch intracellular domain (NICD), and probably PSEN1.

References

Winston J.T.,et al.Curr. Biol. 9:1180-1182(1999).
Moberg K.H.,et al.Nature 413:311-316(2001).
Strohmaier H.,et al.Nature 413:316-322(2001).
Li J.,et al.J. Neurochem. 82:1540-1548(2002).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).

Images

Anti-FBXW7 Antibody (N-term)at 1:2000 dilution + Raji whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase



conjugated at 1/10000 dilution Predicted band size : 80 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.