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

FBXW7 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21277a

Product Information

Application	WB, E
Primary Accession	Q969H0
Reactivity	Human, Mouse
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

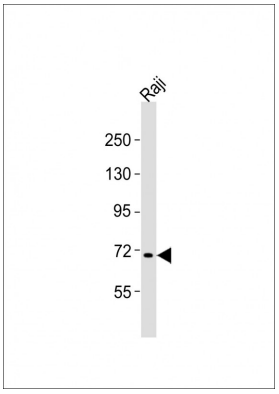
Substrate recognition component of an SCF (SKP1-CUL1-F- box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins. Recognizes and binds phosphorylated sites/phosphodegrons within target proteins and thereafter bring them 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.