

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.

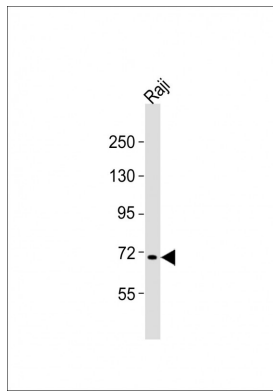
References

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.



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