

FBXW7 Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP21312a**Specification**

FBXW7 Blocking Peptide (N-term) - Product InformationPrimary Accession [Q969H0](#)**FBXW7 Blocking Peptide (N-term) - 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

The synthetic peptide sequence is selected from aa 133-147 of HUMAN FBXW7 (HGNC:16712)

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FBXW7 Blocking Peptide (N-term) - 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:22748924, PubMed:34741373, PubMed:17434132, PubMed:26976582, PubMed:28727686, PubMed:35395208). Recognizes and binds phosphorylated sites/phosphodegrons within target proteins and thereafter brings them to the SCF complex for ubiquitination

(PubMed:22748924, PubMed:34741373, PubMed:26774286, PubMed:17434132, PubMed:26976582, PubMed:28727686). 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:12354302, PubMed:11585921, PubMed:15103331, PubMed:14739463, PubMed:17558397, PubMed:17873522, PubMed:22608923, PubMed:22748924, PubMed:29149593, PubMed:25775507, PubMed:28007894, PubMed:26976582, PubMed:28727686, PubMed:25897075, 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.

FBXW7 Blocking Peptide (N-term) - Protocols

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

- [Blocking Peptides](#)

FBXW7 Blocking Peptide (N-term) - Images

FBXW7 Blocking Peptide (N-term) - Background

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FBXW7 Blocking Peptide (N-term) - 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).
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Bechtel S., et al. BMC Genomics 8:399-399(2007).