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FBXO31 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP17068C

Specification

FBXO31 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q5XUX0
Other Accession	B2RYN2, Q3TQF0, NP_079011.3
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**60664**
Antigen Region	**310-338**

FBXO31 Antibody (Center) - Additional Information

Gene ID 79791

Other Names
F-box only protein 31, FBXO31, FBX14, FBX31

Target/Specificity
This FBXO31 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 310-338 amino acids from the Central region of human FBXO31.

Dilution
WB~~1:1000
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
FBXO31 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

FBXO31 Antibody (Center) - Protein Information

Name FBXO31 {ECO:0000303|PubMed:15520277, ECO:0000312|HGNC:HGNC:16510}

Function Substrate-recognition component of the SCF(FBXO31) protein ligase complex, which specifically mediates the ubiquitination of proteins amidated at their C-terminus in response to oxidative stress, leading to their degradation by the proteasome (PubMed:39880951). FBXO31 specifically recognizes and binds C-terminal peptides bearing an amide: C-terminal amidation in response to oxidative stress takes place following protein fragmentation (PubMed:39880951). The SCF(FBXO31) also plays a role in G1 arrest following DNA damage by mediating ubiquitination of phosphorylated cyclin-D1 (CCND1), promoting its degradation by the proteasome, resulting in G1 arrest (PubMed:19412162, PubMed:29279382). The SCF(FBXO31) complex is however not a major regulator of CCND1 stability during the G1/S transition (By similarity). In response to genotoxic stress, the SCF(FBXO31) complex directs ubiquitination and degradation of phosphorylated MDM2, thereby promoting p53/TP53-mediated DNA damage response (PubMed:26124108). SCF(FBXO31) complex is required for genomic integrity by catalyzing ubiquitination and degradation of cyclin-A (CCNA1 and/or CCNA2) during the G1 phase (PubMed:31413110). In response to genotoxic stress, the SCF(FBXO31) complex directs ubiquitination and degradation of phosphorylated FBXO46 and MAP2K6 (PubMed:24936062, PubMed:30171069). SCF(FBXO31) complex promotes ubiquitination and degradation of CDT1 during the G2 phase to prevent re-replication (PubMed:24828503). The SCF(FBXO31) complex also mediates ubiquitination and degradation of DUSP6, OGT and PARD6A (PubMed:23469015, PubMed:34686346, PubMed:39894887).

Cellular Location
Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:B2RYN2}

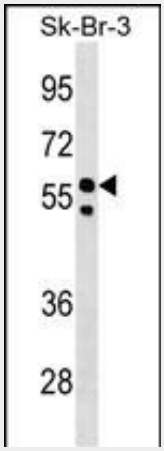
Tissue Location
Highly expressed in brain. Expressed at moderate levels in most tissues, except bone marrow

FBXO31 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FBXO31 Antibody (Center) - Images



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FBXO31 Antibody (Center) (Cat. #AP17068c) western blot analysis in SK-BR-3 cell line lysates (35ug/lane).This demonstrates the FBXO31 antibody detected the FBXO31 protein (arrow).

FBXO31 Antibody (Center) - Background

Members of the F-box protein family, such as FBXO31, are characterized by an approximately 40-amino acid F-box motif. SCF complexes, formed by SKP1 (MIM 601434), cullin (see CUL1; MIM 603134), and F-box proteins, act as protein-ubiquitin ligases. F-box proteins interact with SKP1 through the F box, and they interact with ubiquitination targets through other protein interaction domains (Jin et al., 2004 [PubMed 15520277]).[supplied by OMIM].

FBXO31 Antibody (Center) - References

Rivadeneira, F., et al. Nat. Genet. 41(11):1199-1206(2009)
Santra, M.K., et al. Nature 459(7247):722-725(2009)
Kumar, R., et al. Cancer Res. 65(24):11304-11313(2005)
Jin, J., et al. Genes Dev. 18(21):2573-2580(2004)
Powell, J.A., et al. Genomics 80(3):303-310(2002)