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FBXO31 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58358

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q5XUX0
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60664
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FBXO31
Epitope Specificity	151-250/539
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the FBXO31 family.Contains 1 F-box domain.
SUBUNIT	Part of a SCF (SKP1-cullin-F-box) protein ligase complex.
Post-translational modifications	Phosphorylation at Ser-278 by ATM following gamma-irradiation results in its stabilization.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	FBXO31 belongs to the F-box protein family. Such proteins are characterized by an F-box motif of approximately 40 residues. F-box proteins interact with SKP1 through the F box and they interact with ubiquitination targets through other protein interaction domains. There are two different isoforms.

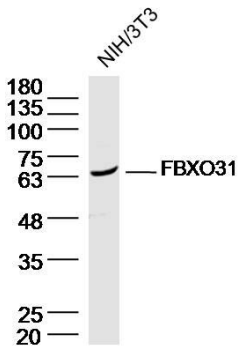
Additional Information

Gene ID	79791
Other Names	F-box only protein 31, FBXO31, FBX14, FBX31
Target/Specificity	Highly expressed in brain. Expressed at moderate levels in most tissues, except bone marrow.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

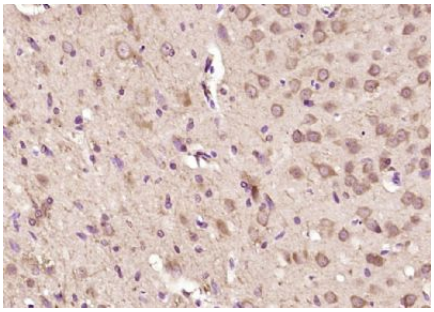
Name	FBXO31 {ECO:0000303|PubMed:15520277, ECO:0000312|HGNC:HGNC:16510}
Function	Substrate-recognition component of the SCF(FBXO31) protein ligase complex, which specifically mediates the ubiquitination of proteins amidated at their C-terminus in response to oxidative stress, leading to their degradation 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

Images

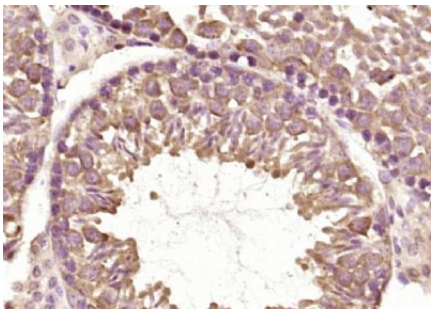


Sample: NIH/3T3 cell (mouse) Lysate at 40 ug
Primary: Anti-FBXO31 (AP58358)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 61kD
Observed band size: 63 kD

Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody



incubation with (FBXO31) Polyclonal Antibody, Unconjugated (AP58358) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FBXO31) Polyclonal Antibody, Unconjugated (AP58358) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.