10320 Camino Santa Fe, Suite G
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FBXO31 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58358

Specification

FBXO31 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, E**
Primary Accession	Q5XUX0
Reactivity	**Rat, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**61 KDa**
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.

FBXO31 Polyclonal Antibody - 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~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

FBXO31 Polyclonal Antibody - 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 Polyclonal Antibody - Protocols

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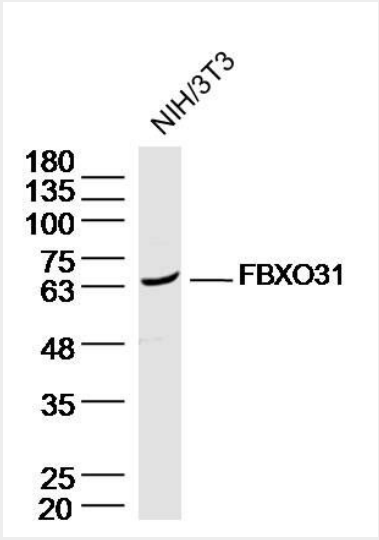
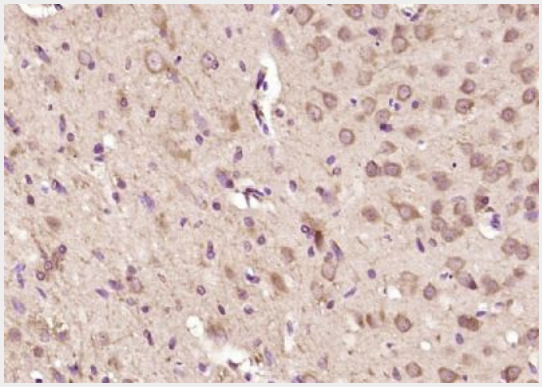
Provided below are standard protocols that you may find useful for product applications.

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

FBXO31 Polyclonal Antibody - Images



Sample: NIH/3T3 cell (mouse) Lysate at 40 ug
Primary: Anti-FBXO31 (bs-6006R)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 (bs-6006R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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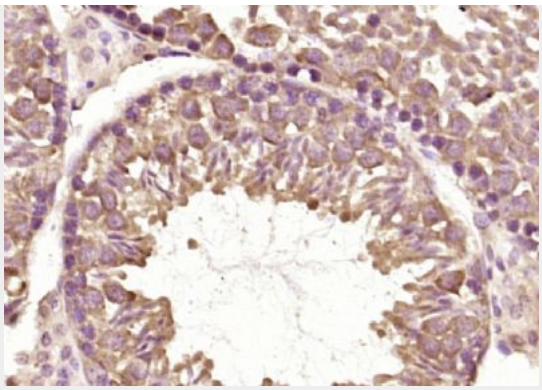

Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FBXO31) Polyclonal Antibody, Unconjugated (bs-6006R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.