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FBXO42 Rabbit pAb

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Catalog # AP54286

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6P3S6
Reactivity	Mouse
Predicted	Rat, Dog, Human, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	77839
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FBXO42
Epitope Specificity	621-717/717
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	FBXO42 (F-box only protein 42) is a 717 amino acid protein that contains four Kelch repeats and one N-terminal F-box domain, and belongs to the F-box family of proteins. F-box proteins are critical components of the SCF (Skp1-CUL-1-F-box protein) type E3 ubiquitin ligase complex and are involved in substrate recognition and recruitment for ubiquitination. They are members of a larger family of proteins that are involved in the regulation of a wide variety of cellular processes (including the cell cycle, immune response, signaling cascades and developmental processes) through the targeting of proteins, such as cyclins, cyclin-dependent kinase inhibitors, IkB-a and b-catenin, for degradation by the proteasome after ubiquitination.

Additional Information

Gene ID	54455
Other Names	F-box only protein 42, Just one F-box and Kelch domain-containing protein, FBXO42, FBX42, JFK, KIAA1332
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	FBXO42
Synonyms	FBX42, JFK, KIAA1332
Function	Substrate-recognition component of the SCF (SKP1-CUL1-F-box protein)-type E3 ubiquitin ligase complex. Required for bipolar spindle formation during mitosis (PubMed:33539788). Recognizes p53/TP53 phosphorylated by CSN-associated kinase, promoting its polyubiquitination and proteasomal degradation (PubMed:19509332, PubMed:21127074, PubMed:39134694). Positively regulates the Notch signaling pathway through 'Lys-63'-linked polyubiquitination of the transcriptional effector RBPJ, stabilizing its chromatin association and potentiating transcriptional activation of Notch target genes (PubMed:36129980). Mediates 'Lys-48'-linked polyubiquitination and proteasomal degradation of components of the PP4 phosphatase complex, including PP4C, PP4R2, PP4R3A and PP4R3B, thereby restraining PP4 phosphatase activity and ensuring proper DNA damage response signaling (PubMed:41484364). Collaborates with CCDC6 to promote polyubiquitination and proteasomal degradation of the catalytic subunit PP2AC (PubMed:41986709). Recognizes ACAA2, promoting its ubiquitination and proteasomal degradation in hepatocytes, thereby attenuating fatty acid beta-oxidation; this activity is negatively regulated by CAND1, which prevents assembly of the SCF(FBXO42)-ACAA2 degradation complex (By similarity).
Cellular Location	Nucleus.

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.