10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FBXL5 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9409a

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	Q9UKA1
Other Accession	Q8C2S5, A2VE78
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23907
Calculated MW	78555
Antigen Region	86-115

Additional Information

Gene ID	26234
Other Names	F-box/LRR-repeat protein 5, F-box and leucine-rich repeat protein 5, F-box protein FBL4/FBL5, p45SKP2-like protein, FBXL5, FBL4, FBL5, FLR1
Target/Specificity	This FBXL5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 86-115 amino acids from the N-terminal region of human FBXL5.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 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	FBXL5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

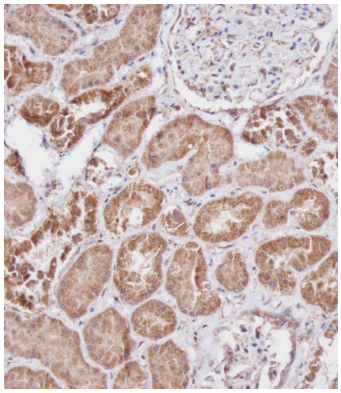
Name	FBXL5
Synonyms	FBL4, FBL5, FLR1

Function	Component of some SCF (SKP1-cullin-F-box) protein ligase complex that plays a central role in iron homeostasis by promoting the ubiquitination and subsequent degradation of IREB2/IRP2 (PubMed:19762596, PubMed:19762597). The C-terminal domain of FBXL5 contains a redox-sensitive [2Fe-2S] cluster that, upon oxidation, promotes binding to IRP2 to effect its oxygen-dependent degradation (PubMed:32126207). Under iron deficiency conditions, the N-terminal hemerythrin-like (Hr) region, which contains a diiron metal center, cannot bind iron and undergoes conformational changes that destabilize the FBXL5 protein and cause its ubiquitination and degradation (PubMed:19762596, PubMed:19762597). When intracellular iron levels start rising, the Hr region is stabilized (PubMed:19762596, PubMed:19762597). Additional increases in iron levels facilitate the assembly and incorporation of a redox active [2Fe-2S] cluster in the C- terminal domain (PubMed:32126207). Only when oxygen level is high enough to maintain the cluster in its oxidized state can FBXL5 recruit IRP2 as a substrate for polyubiquitination and degradation (PubMed:32126207). Promotes ubiquitination and subsequent degradation of the dynactin complex component DCTN1 (PubMed:17532294). Within the nucleus, promotes the ubiquitination of SNAI1; preventing its interaction with DNA and promoting its degradation (PubMed:24157836). Negatively regulates DNA damage response by mediating the ubiquitin- proteasome degradation of the DNA repair protein NABP2 (PubMed:25249620).
Cellular Location	Cytoplasm, perinuclear region. Nucleus

References

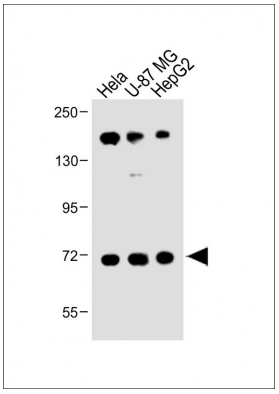
Salahudeen, A.A., et al. Science 326(5953):722-726(2009)
Vashisht, A.A., et al. Science 326(5953):718-721(2009)
Zhang, N., et al. Biochem. Biophys. Res. Commun. 359(1):34-39(2007)
Ilyin, G.P., et al. Genomics 67(1):40-47(2000)
Winston, J.T., et al. Curr. Biol. 9(20):1180-1182(1999)
Cenciarelli, C., et al. Curr. Biol. 9(20):1177-1179(1999)

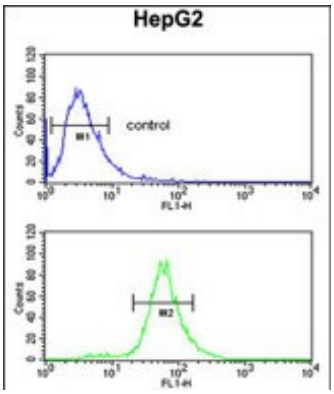
Images



Immunohistochemical analysis of AP9409A on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

All lanes : Anti-FBXL5 Antibody (N-term) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: U-87 MG whole cell lysate Lane 3: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 79 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





FBXL5 Antibody (N-term) (Cat. #AP9409a) flow cytometric analysis of HepG2 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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