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

FBXW8 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10719c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q8N3Y1
Other Accession	NP_036306.1
Reactivity	Human, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28550
Calculated MW	67394
Antigen Region	270-299

Additional Information

Gene ID	26259
Other Names	F-box/WD repeat-containing protein 8, F-box and WD-40 domain-containing protein 8, F-box only protein 29, FBXW8, FBW6, FBW8, FBX29, FBXO29, FBXW6
Target/Specificity	This FBXW8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 270-299 amino acids from the Central region of human FBXW8.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	FBXW8 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FBXW8 {ECO:0000303|PubMed:17205132, ECO:0000312|HGNC:HGNC:13597}

Function	Substrate-recognition component of the Cul7-RING(FBXW8) ubiquitin ligase complex, which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:17205132, PubMed:18498745, PubMed:21572988, PubMed:24362026, PubMed:35982156). The Cul7-RING(FBXW8) complex mediates ubiquitination and consequent degradation of GORASP1, acting as a component of the ubiquitin ligase pathway that regulates Golgi morphogenesis and dendrite patterning in brain (PubMed:21572988). Mediates ubiquitination and degradation of IRS1 in a mTOR-dependent manner: the Cul7-RING(FBXW8) complex recognizes and binds IRS1 previously phosphorylated by S6 kinase (RPS6KB1 or RPS6KB2) (PubMed:18498745). The Cul7-RING(FBXW8) complex also mediates ubiquitination of MAP4K1/HPK1: recognizes and binds autophosphorylated MAP4K1/HPK1, leading to its degradation, thereby affecting cell proliferation and differentiation (PubMed:24362026). The Cul7-RING(FBXW8) complex also mediates ubiquitination of phosphorylated cyclin-D1 (CCND1) (PubMed:17205132). The Cul7-RING(FBXW8) complex is however not a major regulator of CCND1 stability during the G1/S transition (By similarity). Associated component of the 3M complex, suggesting that it mediates some of 3M complex functions (PubMed:24793695).
Cellular Location	Cytoplasm, perinuclear region. Golgi apparatus. Cytoplasm Note=Localizes to the cytosol when phosphorylated at Ser-85, promoting IRS1 ubiquitination. {ECO:0000250|UniProtKB:Q8BIA4}

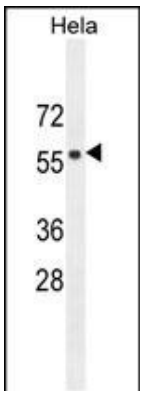
Background

This gene encodes a member of the F-box protein family, members of which are characterized by an approximately 40 amino acid motif, the F-box. The F-box proteins constitute one of the four subunits of ubiquitin protein ligase complex called SCFs (SKP1-cullin-F-box), which function in phosphorylation-dependent ubiquitination. The F-box proteins are divided into three classes: Fbws containing WD-40 domains, Fbls containing leucine-rich repeats, and Fbxs containing either different protein-protein interaction modules or no recognizable motifs. The protein encoded by this gene contains a WD-40 domain, in addition to an F-box motif, so it belongs to the Fbw class. Alternatively spliced transcript variants encoding distinct isoforms have been identified for this gene.

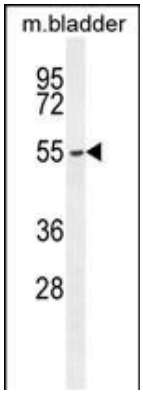
References

Tsutsumi, T., et al. Mol. Cell. Biol. 28(2):743-751(2008)
Koch, H.B., et al. Cell Cycle 6(2):205-217(2007)
Okabe, H., et al. PLoS ONE 1, E128 (2006) :
Watanabe, N., et al. Proc. Natl. Acad. Sci. U.S.A. 101(13):4419-4424(2004)
Dias, D.C., et al. Proc. Natl. Acad. Sci. U.S.A. 99(26):16601-16606(2002)

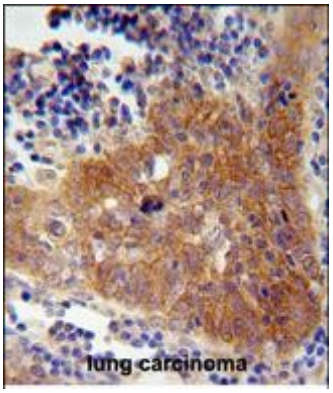
Images



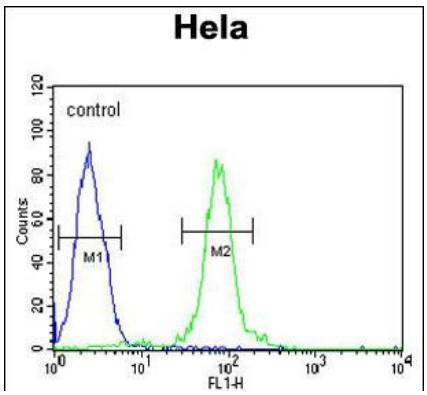
FBXW8 Antibody (Center) (Cat. #AP10719c) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the FBXW8 antibody detected the FBXW8 protein (arrow).



FBXW8 Antibody (Center) (Cat. #AP10719c) western blot analysis in mouse bladder tissue lysates (35ug/lane).This demonstrates the FBXW8 antibody detected the FBXW8 protein (arrow).



FBXW8 Antibody (Center) (Cat. #AP10719c) immunohistochemistry analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the FBXW8 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



FBXW8 Antibody (Center) (Cat. #AP10719c) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- The CUL7/F-box and WD repeat domain containing 8 (CUL7/Fbxw8) ubiquitin ligase promotes degradation of hematopoietic progenitor kinase 1.

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