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FBXL2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5030b

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	Q9UKC9
Other Accession	Q8BH16
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB30004
Calculated MW	47062
Antigen Region	366-395

Additional Information

Gene ID	25827
Other Names	F-box/LRR-repeat protein 2, F-box and leucine-rich repeat protein 2 {ECO:0000312|HGNC:HGNC:13598}, F-box protein FBL2/FBL3 {ECO:0000303|PubMed:10945468, ECO:0000312|EMBL:AAF045101}, FBXL2 (HGNC:13598)
Target/Specificity	This FBXL2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 366-395 amino acids from the C-terminal region of human FBXL2.
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	FBXL2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FBXL2 {ECO:0000303|PubMed:22323446, ECO:0000312|HGNC:HGNC:13598}

Function	Calcium-activated substrate recognition component of the SCF (SKP1-cullin-F-box protein) E3 ubiquitin-protein ligase complex, SCF(FBXL2), which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:22020328, PubMed:22323446, PubMed:31209342). Unlike many F-box proteins, FBXL2 does not seem to target phosphodegron within its substrates but rather calmodulin-binding motifs and is thereby antagonized by calmodulin (PubMed:22020328, PubMed:22323446). This is the case for the cyclins CCND2 and CCND3 which polyubiquitination and subsequent degradation are inhibited by calmodulin (PubMed:22020328, PubMed:22323446). Through CCND2 and CCND3 degradation induces cell-cycle arrest in G(0) (PubMed:22020328, PubMed:22323446). SCF(FBXL2) also mediates PIK3R2 ubiquitination and proteasomal degradation thereby regulating phosphatidylinositol 3-kinase signaling and autophagy (PubMed:23604317). PCYT1A monoubiquitination by SCF(FBXL2) and subsequent degradation regulates synthesis of phosphatidylcholine, which is utilized for formation of membranes and of pulmonary surfactant (By similarity). The SCF(FBXL2) complex acts as a regulator of inflammation by mediating ubiquitination and degradation of TRAF proteins (TRAF1, TRAF2, TRAF3, TRAF4, TRAF5 and TRAF6) (By similarity). The SCF(FBXL2) complex acts as a negative regulator of the NLRP3 inflammasome by mediating ubiquitination and degradation of NLRP3 (PubMed:26037928). The GGTase-3 complex, composed of PTAR1 and RABGGTB, geranylgeranylates and targets FBXL2 to the cellular membranes, where FBXL2 forms part of the SCF(FBXL2) complex that mediates the degradation of membrane-anchored proteins (PubMed:31209342, PubMed:32128853).
Cellular Location	Membrane; Lipid-anchor
Tissue Location	Expressed in brain, heart, kidney, liver, lung, pancreas and placenta.

Background

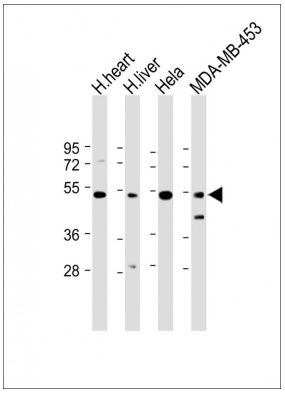
FBXL2 encodes a member of the F-box protein family which is characterized by an approximately 40 amino acid motif, the F-box. The F-box proteins constitute one of the four subunits of ubiquitin protein ligase complex called SCFs (SKP1-cullin-F-box), which function in phosphorylation-dependent ubiquitination. The F-box proteins are divided into 3 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 belongs to the Fbls class and, in addition to an F-box, contains 12 tandem leucine-rich repeats.

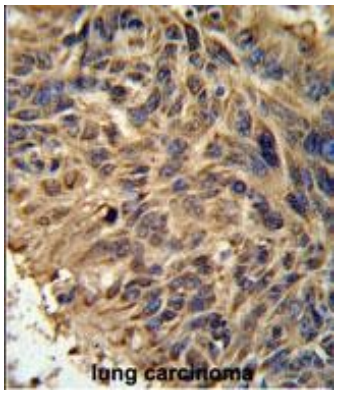
References

Ye, J. PLoS Pathog. 3 (8), E108 (2007)
Ilyin, G.P., et al. Genomics 67(1):40-47(2000)
Winston, J.T., et al. Curr. Biol. 9(20):1180-1182(1999)

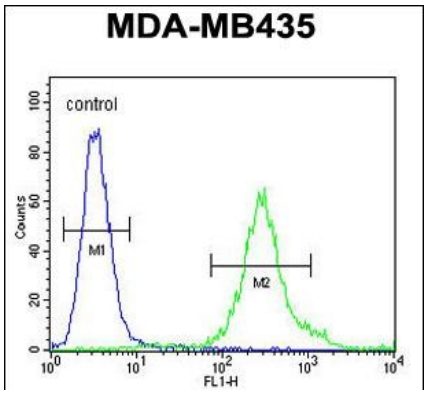
Images

All lanes : Anti-FBXL2 Antibody (C-term) at 1:1000-1:2000 dilution Lane 1: Human heart lysate Lane 2: Human liver lysate Lane 3: Hela whole cell lysate Lane 4: MDA-MB-453 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 : 47 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





FBXL2 Antibody (C-term) (Cat. #AP5030b) IHC 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 FBXL2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



FBXL2 Antibody (C-term) (Cat. #AP5030b) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left 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'.