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FBXL5 / FBL5 Antibody (aa510-691)

Rabbit Polyclonal Antibody

Catalog # ALS16064

Specification

FBXL5 / FBL5 Antibody (aa510-691) - Product Information

Application	**WB, IHC**
Primary Accession	Q9UKA1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**79kDa KDa**

FBXL5 / FBL5 Antibody (aa510-691) - 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
Human FBXL5.

Reconstitution & Storage
Store at -20°C for up to one year.

Precautions
FBXL5 / FBL5 Antibody (aa510-691) is for research use only and not for use in diagnostic or therapeutic procedures.

FBXL5 / FBL5 Antibody (aa510-691) - 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:<a

href="http://www.uniprot.org/citations/19762596" target="_blank">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 polyubiquination 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).

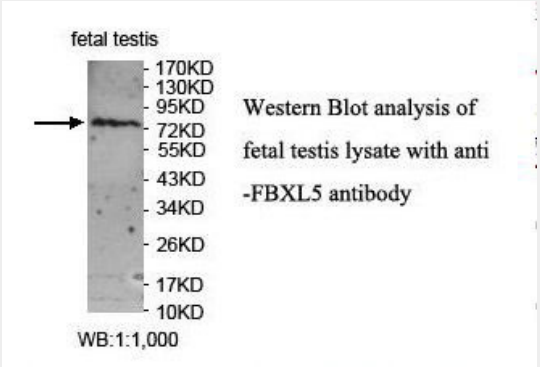
Cellular Location
Cytoplasm, perinuclear region. Nucleus

FBXL5 / FBL5 Antibody (aa510-691) - Protocols

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

FBXL5 / FBL5 Antibody (aa510-691) - Images



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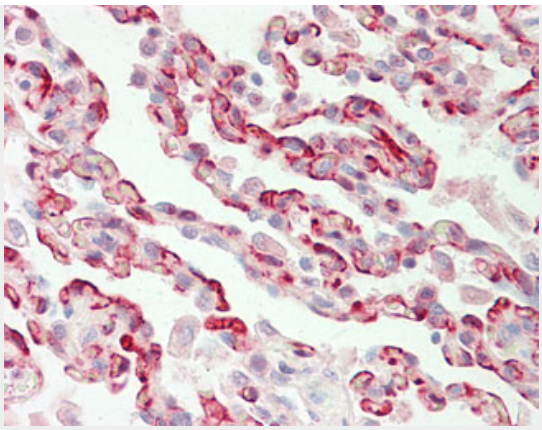

Anti-FBXL5 / FBL5 antibody IHC staining of human lung.

FBXL5 / FBL5 Antibody (aa510-691) - Background

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. Upon high iron and oxygen level, it specifically recognizes and binds IREB2/IRP2, promoting its ubiquitination and degradation by the proteasome. Promotes ubiquitination and subsequent degradation of DCTN1/p150-glued.

FBXL5 / FBL5 Antibody (aa510-691) - References

Winston J.T.,et al.Curr. Biol. 9:1180-1182(1999).
Ilyin G.P.,et al.Genomics 67:40-47(2000).
Shimbara N.,et al.Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).