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FBX22 Antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI16151

Product Information

Application	WB
Primary Accession	Q8NEZ5
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44508

Additional Information

Gene ID	26263
Alias Symbol	FBXO22, FBX22,
Other Names	F-box only protein 22, F-box protein FBX22p44, FBXO22, FBX22
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 &mu, l of distilled water. Final Anti-FBX22 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.
Precautions	FBX22 Antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FBXO22
Synonyms	FBX22
Function	Substrate-recognition component of the SCF (SKP1-CUL1-F-box protein)-type E3 ubiquitin ligase complex that is implicated in the control of various cellular processes such as cell cycle control, transcriptional regulation, DNA damage repair, and apoptosis. Promotes the proteasome-dependent degradation of key sarcomeric proteins, such as alpha-actinin (ACTN2) and filamin-C (FLNC), essential for maintenance of normal contractile function. Acts as a key regulator of histone methylation marks namely H3K9 and H3K36 methylation through the regulation of histone demethylase KDM4A protein levels (PubMed:21768309). In complex with KDM4A, also regulates the abundance of TP53 by targeting methylated TP53 for degradation at the late senescent stage (PubMed:26868148). Under oxidative stress, promotes the ubiquitination and degradation of BACH1. Mechanistically, reactive oxygen

	species (ROS) covalently modify cysteine residues on the bZIP domain of BACH1, leading to its release from chromatin and making it accessible to FBXO22 (PubMed:39504958). Upon amino acid depletion, mediates 'Lys-27'-linked ubiquitination of MTOR and thereby inhibits substrate recruitment to mTORC1 (PubMed:37979583). Also inhibits SARS- CoV-2 replication by inducing NSP5 degradation (PubMed:39223933).
Cellular Location	Cytoplasm. Nucleus. Cytoplasm, myofibril, sarcomere, Z line. Note=Amino acid depletion lead to a time-dependent increase of FBXO22 in the cytoplasm.
Tissue Location	Predominantly expressed in liver, also enriched in cardiac muscle.

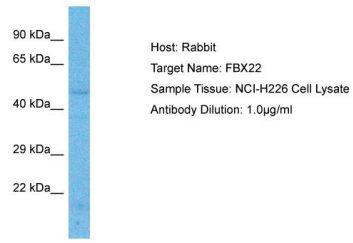
Background

Substrate-recognition component of the SCF (SKP1-CUL1-F- box protein)-type E3 ubiquitin ligase complex. Promotes the proteasome-dependent degradation of key sarcomeric proteins, such as alpha-actinin (ACTN2) and filamin-C (FLNC), essential for maintenance of normal contractile function.

References

Tan P.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Zody M.C.,et al.Nature 440:671-675(2006).
Cenciarelli C.,et al.Curr. Biol. 9:1177-1179(1999).
Gauci S.,et al.Anal. Chem. 81:4493-4501(2009).

Images



Host: Rabbit
Target Name: FBX22
Sample Tissue: NCI-H226 Whole Cell lysates
Antibody Dilution: 1.0µg/ml

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