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KLHL12 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17327b

Product Information

Application	WB, E
Primary Accession	Q53G59
Other Accession	Q6NRH0, Q8R2H4, Q8BZM0, Q5U374, E1B932, NP_067646.1
Reactivity	Human, Mouse
Predicted	Bovine, Zebrafish, Rat, Xenopus, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37184
Calculated MW	63277
Antigen Region	376-404

Additional Information

Gene ID	59349
Other Names	Kelch-like protein 12, CUL3-interacting protein 1, DKIR homolog, hDKIR, KLHL12, C3IP1
Target/Specificity	This KLHL12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 376-404 amino acids from the C-terminal region of human KLHL12.
Dilution	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	KLHL12 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KLHL12
Synonyms	C3IP1 {ECO:0000303|Ref.1}

Function	Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex that acts as a negative regulator of Wnt signaling pathway and ER-Golgi transport (PubMed:22358839, PubMed:27565346). The BCR(KLHL12) complex is involved in ER-Golgi transport by regulating the size of COPII coats, thereby playing a key role in collagen export, which is required for embryonic stem (ES) cells division: BCR(KLHL12) acts by mediating monoubiquitination of SEC31 (SEC31A or SEC31B) (PubMed:22358839, PubMed:27565346). The BCR(KLHL12) complex is also involved in neural crest specification: in response to cytosolic calcium increase, interacts with the heterodimer formed with PEF1 and PDCD6/ALG-2, leading to bridge together the BCR(KLHL12) complex and SEC31 (SEC31A or SEC31B), promoting monoubiquitination of SEC31 and subsequent collagen export (PubMed:27716508). As part of the BCR(KLHL12) complex, also acts as a negative regulator of the Wnt signaling pathway by mediating ubiquitination and subsequent proteolysis of DVL3 (PubMed:16547521). The BCR(KLHL12) complex also mediates polyubiquitination of DRD4 and PEF1, without leading to degradation of these proteins (PubMed:18303015, PubMed:20100572, PubMed:27716508).
Cellular Location	Cytoplasmic vesicle, COPII-coated vesicle
Tissue Location	Ubiquitously expressed. Highly expressed in testis and at lower levels in the submandibular salivary gland

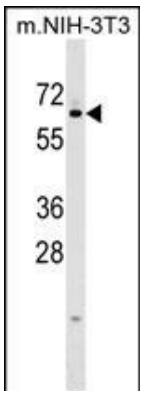
Background

Serves as a substrate-specific adapter for the CUL3-based ubiquitin-protein E3 ligase complex. Negatively regulates the Wnt signaling pathway via the targeted ubiquitination and subsequent proteolysis of DVL3.

References

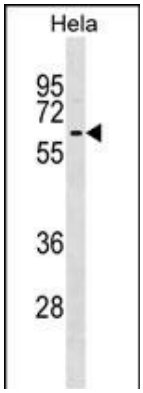
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Images



KLHL12 Antibody (C-term) (Cat. #AP17327b) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane).This demonstrates the KLHL12 antibody detected the KLHL12 protein (arrow).

KLHL12 Antibody (C-term) (Cat. #AP17327b) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the KLHL12 antibody detected the KLHL12 protein (arrow).



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