

KLHL12 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1411a**Specification**

KLHL12 Antibody - Product Information

Application	WB, E
Primary Accession	Q53G59
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	63kDa KDa

Description

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. Tissue specificity: Highly expressed in testis and at lower levels in the submandibular salivary gland.

Immunogen

Purified recombinant fragment of human KLHL12 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

KLHL12 Antibody - Additional Information

Gene ID 59349

Other Names

Kelch-like protein 12, CUL3-interacting protein 1, DKIR homolog, hDKIR, KLHL12, C3IP1

Dilution

WB~~1/500 - 1/2000

E~~N/A

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

KLHL12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KLHL12 Antibody - 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

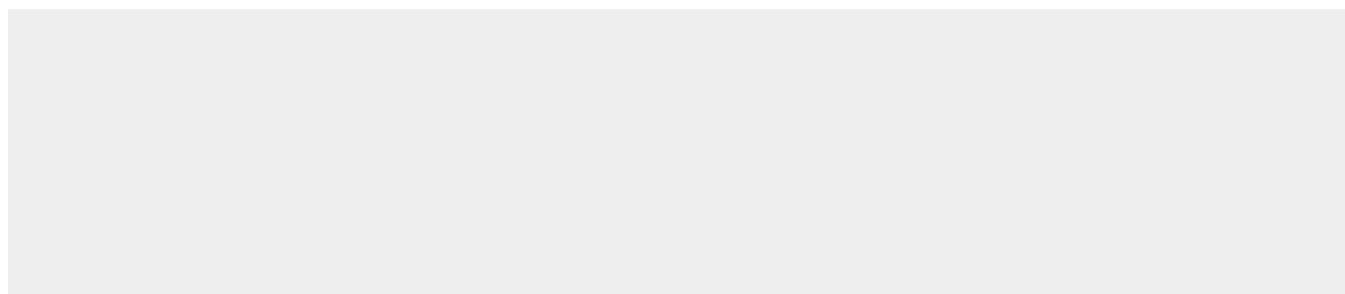
Ubiquitously expressed. Highly expressed in testis and at lower levels in the submandibular salivary gland

KLHL12 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KLHL12 Antibody - Images



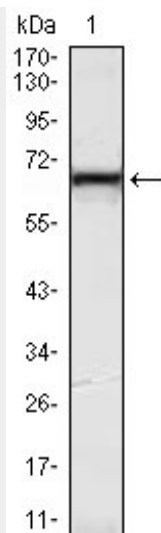


Figure 1: Western blot analysis using KLHL12 mouse mAb against HeLa (1) cell lysate.

KLHL12 Antibody - References

1. Exp Cell Res. 2004 Oct 15;300(1):72-83.
2. Gene. 1994 Jan 28;138(1-2):171-4.