

### **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: <a href="http://www.uniprot.org/citations/22358839" target=" blank">22358839</a>, PubMed:<a href="http://www.uniprot.org/citations/27565346" target=" blank">27565346</a>). 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:<a href="http://www.uniprot.org/citations/22358839" target=" blank">22358839</a>, PubMed:<a href="http://www.uniprot.org/citations/27565346" target=" blank">27565346</a>). 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: <a href="http://www.uniprot.org/citations/27716508" target=" blank">27716508</a>). 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:<a href="http://www.uniprot.org/citations/16547521" target=" blank">16547521</a>). The BCR(KLHL12) complex also mediates polyubiquitination of DRD4 and PEF1, without leading to degradation of these proteins (PubMed: <a href="http://www.uniprot.org/citations/18303015" target=" blank">18303015</a>, PubMed:<a href="http://www.uniprot.org/citations/20100572" target="blank">20100572</a>, PubMed:<a href="http://www.uniprot.org/citations/27716508" target=" blank">27716508</a>).

#### **Cellular Location**

Cytoplasmic vesicle, COPII-coated vesicle

#### **Tissue Location**

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

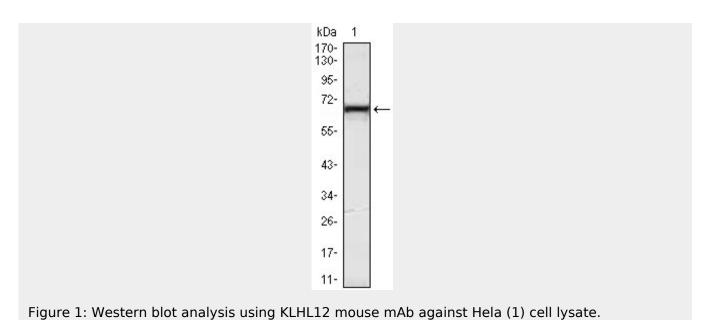
# **KLHL12 Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

#### KLHL12 Antibody - Images





# **KLHL12 Antibody - References**

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