10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# KLHL12 Antibody (C-term)

**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP17327b**

## Specification

### KLHL12 Antibody (C-term) - 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** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **63277** |
| Antigen Region | **376-404** |

### KLHL12 Antibody (C-term) - 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.

### KLHL12 Antibody (C-term) - 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

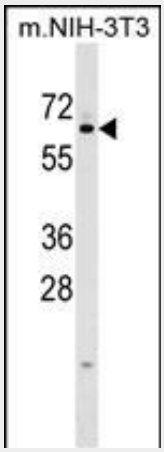
**Tissue Location**
Ubiquitously expressed. Highly expressed in testis and at lower levels in the submandibular salivary gland

## KLHL12 Antibody (C-term) - 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

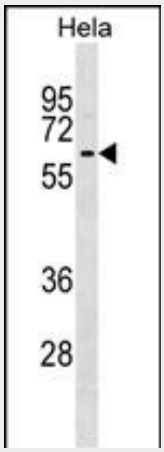
## KLHL12 Antibody (C-term) - Images




KLHL12 Antibody (C-term) (Cat. #AP17327b) western blot analysis in mouse NIH-3T3 cell line

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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).

**KLHL12 Antibody (C-term) - 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.

**KLHL12 Antibody (C-term) - References**

Ehret, G.B., et al. Eur. J. Hum. Genet. 17(12):1650-1657(2009)
Rondou, P., et al. J. Biol. Chem. 283(17):11083-11096(2008)
Lim, J., et al. Cell 125(4):801-814(2006)
Angers, S., et al. Nat. Cell Biol. 8(4):348-357(2006)
Uchida, K., et al. Immunology 116(1):53-63(2005)