

**KLHL12 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP17327b****Specification**

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**KLHL12 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [Q53G59](#)**KLHL12 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 59349**Other Names**

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

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**KLHL12 Antibody (C-term) Blocking Peptide - 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

[16547521](http://www.uniprot.org/citations/16547521)). The BCR(KLHL12) complex also mediates polyubiquitination of DRD4 and PEF1, without leading to degradation of these proteins (PubMed: [18303015](http://www.uniprot.org/citations/18303015), PubMed: [20100572](http://www.uniprot.org/citations/20100572), PubMed: [27716508](http://www.uniprot.org/citations/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) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**KLHL12 Antibody (C-term) Blocking Peptide - Images****KLHL12 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - 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)