

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

KLHL12 Antibody (C-term) Blocking Peptide - Product InformationPrimary 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: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) 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)