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

CUL2 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP16900a

Specification

CUL2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q13617

CUL2 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 8453

Other Names
Cullin-2, CUL-2, CUL2

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.

CUL2 Antibody (N-term) Blocking Peptide - Protein Information

Name CUL2 (HGNC:2552)

Function
Core component of multiple cullin-RING-based ECS (ElonginB/C- CUL2/5-SOCS-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of target proteins (PubMed:11384984, PubMed:26138980, PubMed:29779948, PubMed:29775578). CUL2 may serve as a rigid scaffold in the complex and may contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme (PubMed:9122164, PubMed:10973499, PubMed:11384984, PubMed:12609982, PubMed:24076655). The E3 ubiquitin-protein ligase activity of the complex is dependent on the neddylation of the cullin subunit and is inhibited by the association of the deneddylated cullin subunit with TIP120A/CAND1 (PubMed:12609982, PubMed:24076655, PubMed:27565346).

The functional specificity of the ECS complex depends on the substrate recognition component (PubMed:9122164, PubMed:10973499, PubMed:26138980, PubMed:29779948, PubMed:29775578). ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF) (PubMed:9122164, PubMed:10973499). A number of ECS complexes (containing either KLHDC2, KLHDC3, KLHDC10, APPBP2, FEM1A, FEM1B or FEM1C as substrate-recognition component) are part of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed:26138980, PubMed:29779948, PubMed:29775578). ECS complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins (PubMed:27565346). ECS(LRR1) ubiquitinates MCM7 and promotes CMG replisome disassembly by VCP and chromatin extraction during S- phase (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q9D4H8}.

CUL2 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CUL2 Antibody (N-term) Blocking Peptide - Images

CUL2 Antibody (N-term) Blocking Peptide - Background

Core component of multiple cullin-RING-based ECS (ElonginB/C-CUL2/5-SOCS-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of target proteins. May serve as a rigid scaffold in the complex and may contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme. The E3 ubiquitin-protein ligase activity of the complex is dependent on the neddylation of the cullin subunit and is inhibited by the association of the deneddylated cullin subunit with TIP120A/CAND1 (By similarity). The functional specificity of the ECS complex depends on the substrate recognition component. ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF).

CUL2 Antibody (N-term) Blocking Peptide - References

Park, S.W., et al. APMIS 117(12):880-885(2009)Argyropoulos, G., et al. Physiol. Genomics 36(2):79-88(2009)Barrett, J.C., et al. Nat. Genet. 40(8):955-962(2008)Maeda, Y., et al. J. Biol. Chem. 283(23):16084-16092(2008)Huh, K., et al. J. Virol. 81(18):9737-9747(2007)