

Anti-Cullin 2 Antibody
Catalog # ABO11184**Specification**

Anti-Cullin 2 Antibody - Product Information

Application	WB
Primary Accession	Q13617
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Cullin-2(CUL2) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Cullin 2 Antibody - Additional Information

Gene ID 8453

Other Names

Cullin-2, CUL-2, CUL2

Calculated MW

86983 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Protein Name

Cullin-2

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human Cullin 2(264-280aa HECQQRMVADHLQFLHA), different from the related mouse and rat sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be

aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Cullin 2 Antibody - 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](http://www.uniprot.org/citations/11384984), PubMed: [26138980](http://www.uniprot.org/citations/26138980), PubMed: [29775578](http://www.uniprot.org/citations/29775578), PubMed: [29779948](http://www.uniprot.org/citations/29779948), PubMed: [38326650](http://www.uniprot.org/citations/38326650)). CUL2 serves as a rigid scaffold in the complex and may contribute to catalysis through positioning of the substrate and the E2 ubiquitin- conjugating enzyme (PubMed: [10973499](http://www.uniprot.org/citations/10973499), PubMed: [11384984](http://www.uniprot.org/citations/11384984), PubMed: [12609982](http://www.uniprot.org/citations/12609982), PubMed: [24076655](http://www.uniprot.org/citations/24076655), PubMed: [9122164](http://www.uniprot.org/citations/9122164), PubMed: [38326650](http://www.uniprot.org/citations/38326650)). 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](http://www.uniprot.org/citations/12609982), PubMed: [24076655](http://www.uniprot.org/citations/24076655), PubMed: [27565346](http://www.uniprot.org/citations/27565346), PubMed: [38326650](http://www.uniprot.org/citations/38326650)). The functional specificity of the ECS complex depends on the substrate recognition component (PubMed: [10973499](http://www.uniprot.org/citations/10973499), PubMed: [26138980](http://www.uniprot.org/citations/26138980), PubMed: [29775578](http://www.uniprot.org/citations/29775578), PubMed: [29779948](http://www.uniprot.org/citations/29779948), PubMed: [9122164](http://www.uniprot.org/citations/9122164), PubMed: [38326650](http://www.uniprot.org/citations/38326650)). ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF) (PubMed: [10973499](http://www.uniprot.org/citations/10973499), PubMed: [9122164](http://www.uniprot.org/citations/9122164)). 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](http://www.uniprot.org/citations/26138980), PubMed: [29775578](http://www.uniprot.org/citations/29775578), PubMed: [29779948](http://www.uniprot.org/citations/29779948)). ECS complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins (PubMed: [27565346](http://www.uniprot.org/citations/27565346)). ECS(LRR1) ubiquitinates MCM7 and promotes CMG replisome disassembly by VCP and chromatin extraction during S- phase (By similarity).

Cellular Location

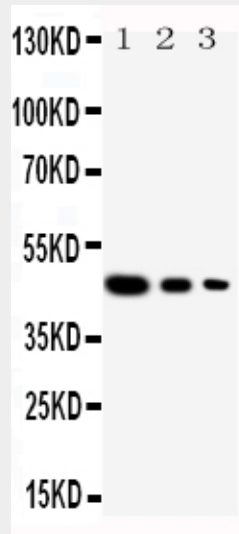
Nucleus {ECO:0000250|UniProtKB:Q9D4H8}.

Anti-Cullin 2 Antibody - Protocols

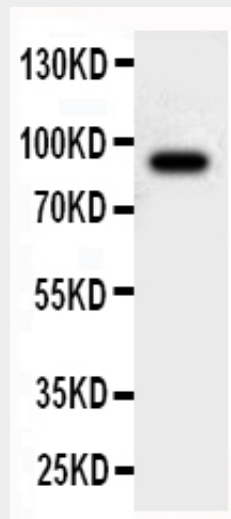
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

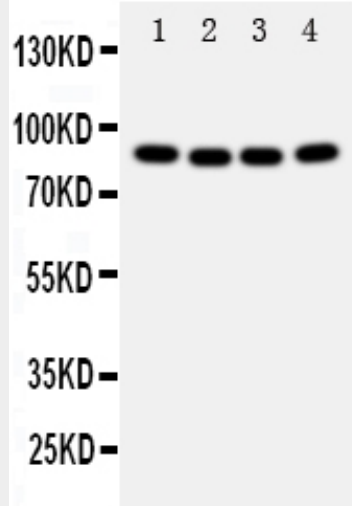
Anti-Cullin 2 Antibody - Images



Anti-Cullin 2 antibody, ABO11184, Western blotting Recombinant Protein Detection Source: E.coli derived -recombinant human Cul2, 46.5KD(162aa tag+L150-Y394) Lane 1: Recombinant Human Cul2 Protein 10ng Lane 2: Recombinant Human Cul2 Protein 5ng Lane 3: Recombinant Human Cul2 Protein 2.5ng



Anti-Cullin 2 antibody, ABO11184, Western blotting WB: Rat Brain Tissue Lysate



Anti-Cullin 2 antibody, ABO11184, Western blotting Lane 1: A431 Cell Lysate Lane 2: SMMC Cell Lysate Lane 3: HELA Cell Lysate Lane 4: COLO320 Cell Lysate

Anti-Cullin 2 Antibody - Background

Cullin 2 (CUL2) is a protein that in humans is encoded by the CUL2 gene. Using immunofluorescence, they showed that CUL2 is a cytosolic protein that can be translocated to the nucleus by VHL. By fluorescence in situ hybridization, Clifford et al. (1999) mapped the CUL2 gene to 10p11.2-p11.1, a region reported to show loss of heterozygosity (LOH) in several forms of human cancer, including non-clear cell renal cell carcinoma. Pause et al. (1997) suggested that CUL2 is a candidate tumor suppressor gene, as has been proposed for CUL1 (603134). Lonergan et al. (1998) demonstrated that formation of the VBC-CUL2 complexes is linked to the regulation of hypoxia-inducible mRNAs by VHL. Cul2 was one of several proteins required for degradation of a class of RNA-binding germline proteins in somatic cells of the early blastomere.