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

Anti-Cullin 2 Antibody

Catalog # ABO11184

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.

Additional Information

Gene ID	8453
Other Names	Cullin-2, CUL-2, CUL2
Calculated MW	86983
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat, Mouse
Source	Eukaryota
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.

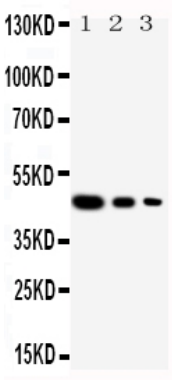
Protein Information

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:29775578, PubMed:29779948, PubMed:37844242, PubMed: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, PubMed:11384984, PubMed:12609982, PubMed:24076655, PubMed:9122164, PubMed:37844242, PubMed: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, PubMed:24076655, PubMed:27565346, PubMed:38326650). The functional specificity of the ECS complex depends on the substrate recognition component (PubMed:10973499, PubMed:26138980, PubMed:29775578, PubMed:29779948, PubMed:9122164, PubMed:38326650). ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF) (PubMed:10973499, PubMed: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, PubMed:29775578, PubMed:29779948, PubMed:37844242). 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}.

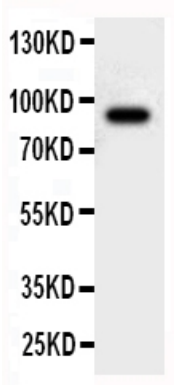
Background

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.

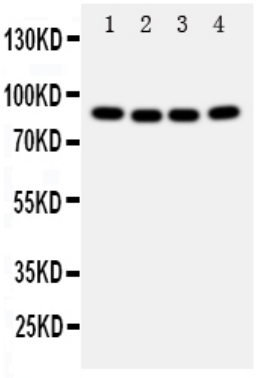
Images



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



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



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.