

Cullin 2 Rabbit mAb

Catalog # AP77098

Product Information

Application WB, IF, FC, ICC, IP

Primary Accession Q13617

Reactivity Rat, Human, Mouse

Host Rabbit

Clonality Monoclonal Antibody

Isotype IgG

Conjugate Unconjugated

Immunogen A synthesized peptide derived from human Cullin 2

Purification Affinity Chromatography

Calculated MW 86983

Additional Information

Gene ID 8453

Other Names CUL2

Dilution WB~~1/500-1/1000 IF~~1:50~200 FC~~1:10~50 ICC~~N/A IP~~N/A

Format Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02%

sodium azide and 50% glycerol.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

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:<u>38326650</u>). 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:<u>10973499</u>, PubMed:<u>11384984</u>,

PubMed: 12609982, PubMed: 24076655, PubMed: 9122164,

PubMed:<u>38326650</u>). 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,

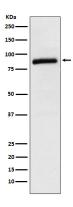
PubMed:<u>38326650</u>). The functional specificity of the ECS complex depends on the substrate recognition component (PubMed:<u>10973499</u>, PubMed:<u>26138980</u>,

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). 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}.

Images



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