

Cullin 2 Rabbit mAb

Catalog # AP75303

Product Information

Application WB, IP **Primary Accession** Q13617

Reactivity Human, Mouse, Rat

Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 86983

Additional Information

Gene ID 8453

Other Names CUL2

Dilution WB~~1/500-1/1000 IP~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

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: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:<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:<u>29775578</u>, PubMed:<u>29779948</u>, PubMed:<u>9122164</u>, PubMed:<u>38326650</u>). ECS(VHL) mediates the ubiquitination of

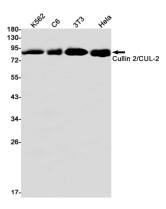
hypoxia-inducible factor (HIF) (PubMed: 10973499, PubMed: 9122164). A number of ECS complexes (containing either KLHDC2, KLHDC3, KLHDC10,

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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