

CUL-2 Polyclonal Antibody

Catalog # AP69341

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q13617
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	86983

Additional Information

Gene ID	8453
Other Names	CUL2; Cullin-2; CUL-2
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50-200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

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: 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: 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](#)). 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).

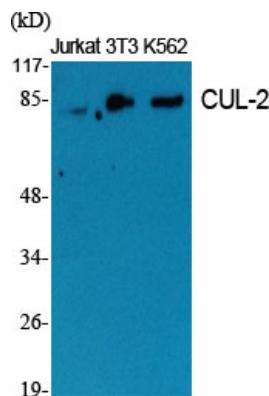
Cellular Location

Nucleus {ECO:0000250 | UniProtKB:Q9D4H8}.

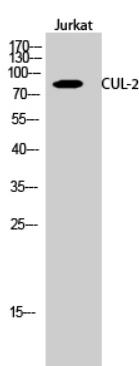
Background

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. ECS complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins (PubMed:[27565346](#)). 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. The functional specificity of the ECS complex depends on the substrate recognition component. ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF).

Images



Western Blot analysis of various cells using CUL-2 Polyclonal Antibody diluted at 1 : 2000



Western Blot analysis of Jurkat cells using CUL-2 Polyclonal Antibody diluted at 1 : 2000

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