

CUL-2 Polyclonal Antibody
Catalog # AP69341**Specification****CUL-2 Polyclonal Antibody - Product Information**

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

CUL-2 Polyclonal Antibody - 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.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

CUL-2 Polyclonal Antibody - Protein InformationName 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, 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

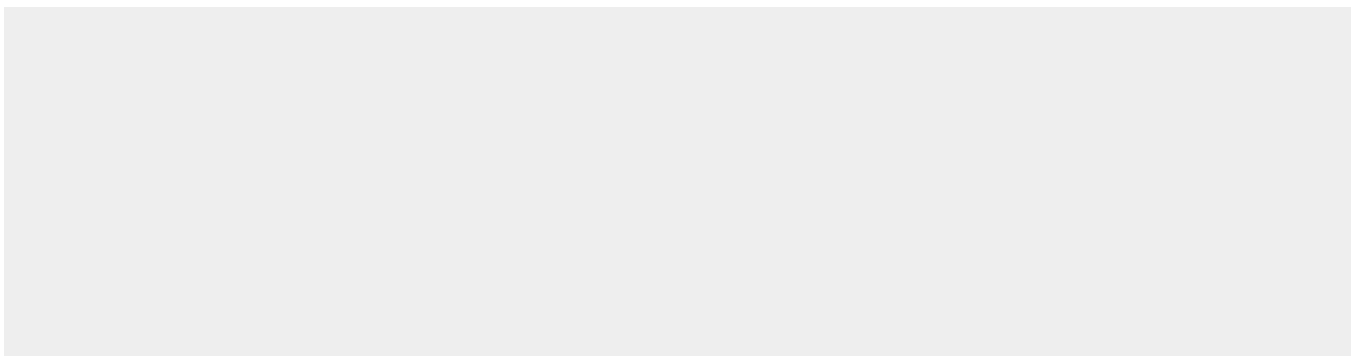
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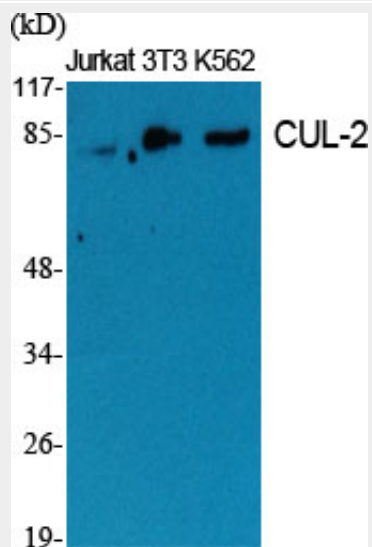
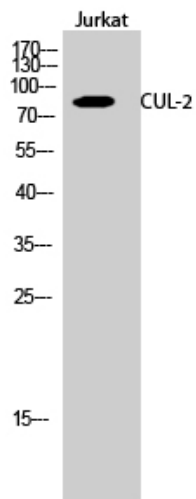
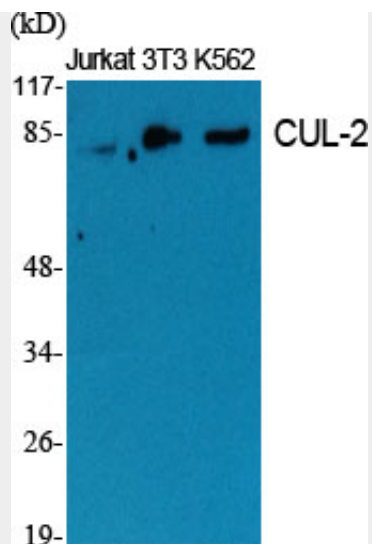
CUL-2 Polyclonal Antibody - Protocols

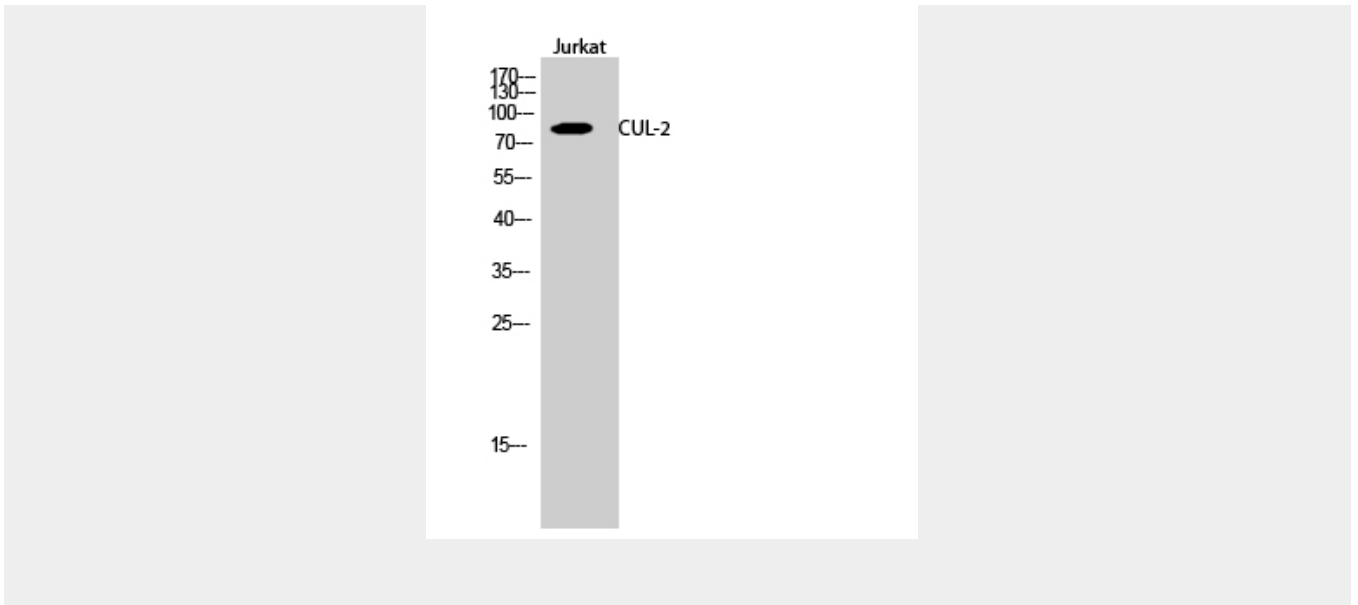
Provided below are standard protocols that you may find useful for product applications.

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

CUL-2 Polyclonal Antibody - Images







CUL-2 Polyclonal Antibody - 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).