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Cullin 2 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50189

Specification

Cullin 2 Antibody - Product Information

Application	**IF, WB, IHC**
Primary Accession	Q13617
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**87,89 KDa**
Antigen Region	**714-745**

Cullin 2 Antibody - Additional Information

Gene ID 8453

Other Names
Cullin-2, CUL-2, CUL2

Dilution
IF~~1:100
WB~~1:1000
IHC~~1:50-1:100

Format
Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions
-20℃

Cullin 2 Antibody - 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:<a

href="http://www.uniprot.org/citations/11384984" target="_blank">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}.

Cullin 2 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 Cytomety
- Cell Culture

Cullin 2 Antibody - Images

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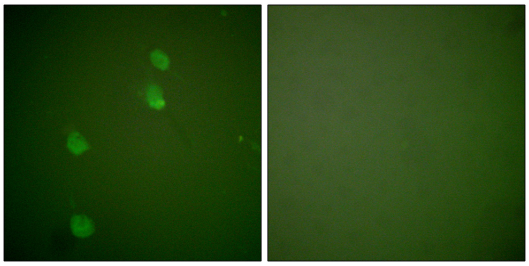
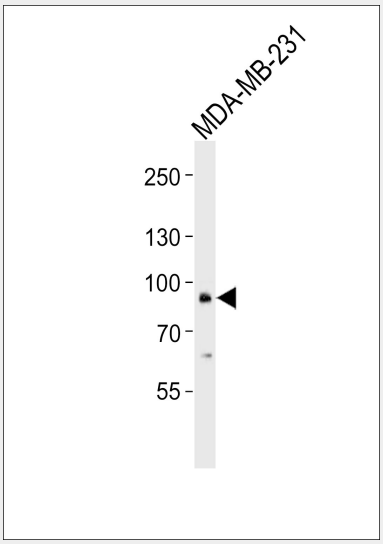
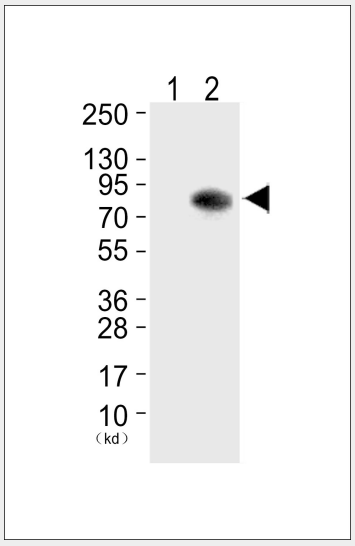


Immunofluorescence analysis of NIH/3T3 cells, using Cullin 2 antibody .



Western blot analysis of lysate from MDA-MB-231 cell line,using Cullin 2 Antibody(C0163). C0163 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.



Western blot analysis of extracts from HepG2 cells (Lane 2), using Cullin 2 Antibody. The lane on the left is treated with systhesized peptide.

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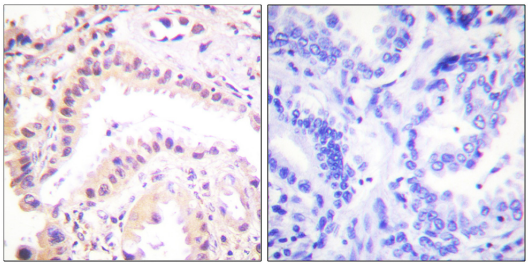

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using Cullin 2 antibody .

Cullin 2 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. 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 (By similarity). The functional specificity of the ECS complex depends on the substrate recognition component. ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF).

Cullin 2 Antibody - References

Pause A.,et al.Proc. Natl. Acad. Sci. U.S.A. 94:2156-2161(1997).
Wada H.,et al.Biochem. Biophys. Res. Commun. 257:100-105(1999).
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Deloukas P.,et al.Nature 429:375-381(2004).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.