

### **CUL2 Antibody (N-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16900a

# **Specification**

# **CUL2 Antibody (N-term) - Product Information**

Application WB,E
Primary Accession O13617

Other Accession Q9D4H8, NP\_003582.2

Reactivity Human, Mouse

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 86983
Antigen Region 150-179

# **CUL2 Antibody (N-term) - Additional Information**

**Gene ID 8453** 

**Other Names** 

Cullin-2, CUL-2, CUL2

### Target/Specificity

This CUL2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 150-179 amino acids from the N-terminal region of human CUL2.

### **Dilution**

WB~~1:1000

# **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

CUL2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# **CUL2 Antibody (N-term) - 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: 29779948, PubMed: 29775578). CUL2 may serve as a rigid scaffold in the complex and may contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme (PubMed:9122164, PubMed:10973499, PubMed: 11384984, PubMed: 12609982, PubMed: 24076655). 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). The functional specificity of the ECS complex depends on the substrate recognition component (PubMed: 9122164, PubMed: 10973499, PubMed: 26138980, PubMed: 29779948, PubMed: 29775578). ECS(VHL) mediates the ubiquitination of hypoxia-inducible factor (HIF) (PubMed: 9122164, PubMed: 10973499). 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:29779948, PubMed:29775578). 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**

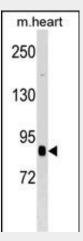
Nucleus {ECO:0000250|UniProtKB:Q9D4H8}.

# CUL2 Antibody (N-term) - Protocols

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

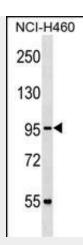
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# CUL2 Antibody (N-term) - Images



CUL2 Antibody (N-term) (Cat. #AP16900a) western blot analysis in mouse heart tissue lysates (35ug/lane). This demonstrates the CUL2 antibody detected the CUL2 protein (arrow).





CUL2 Antibody (N-term) (Cat. #AP16900a) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the CUL2 antibody detected the CUL2 protein (arrow).

# CUL2 Antibody (N-term) - 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).

# CUL2 Antibody (N-term) - References

Park, S.W., et al. APMIS 117(12):880-885(2009) Argyropoulos, G., et al. Physiol. Genomics 36(2):79-88(2009) Barrett, J.C., et al. Nat. Genet. 40(8):955-962(2008) Maeda, Y., et al. J. Biol. Chem. 283(23):16084-16092(2008) Huh, K., et al. I. Virol. 81(18):9737-9747(2007)