

Anti-Cullin 1 Antibody
Catalog # ABO10875**Specification**

Anti-Cullin 1 Antibody - Product Information

Application	WB, IHC-P
Primary Accession	Q13616
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Cullin-1(Cul1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Cullin 1 Antibody - Additional Information

Gene ID 8454

Other Names

Cullin-1, CUL-1, CUL1

Calculated MW

89679 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Tissue Specificity

Expressed in lung fibroblasts. .

Protein Name

Cullin-1(CUL-1)

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human Cullin 1(34-52aa RQSMASRYMELYTHVYNY), identical to the related mouse and rat sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Cullin 1 Antibody - Protein Information

Name CUL1

Function

Core component of multiple cullin-RING-based SCF (SKP1-CUL1- F-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of proteins involved in cell cycle progression, signal transduction and transcription. SCF complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins (PubMed: 22017875, PubMed: 22017877, PubMed: 27565346). In the SCF complex, serves as a rigid scaffold that organizes the SKP1-F-box protein and RBX1 subunits. May contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme (PubMed: 38326650). The E3 ubiquitin- protein ligase activity of the complex is dependent on the neddylation of the cullin subunit and exchange of the substrate recognition component is mediated by TIP120A/CAND1 (PubMed: 12609982, PubMed: 38326650). The functional specificity of the SCF complex depends on the F-box protein as substrate recognition component (PubMed: 38326650). SCF(BTRC) and SCF(FBXW11) direct ubiquitination of CTNNB1 and participate in Wnt signaling. SCF(FBXW11) directs ubiquitination of phosphorylated NFKBIA. SCF(BTRC) directs ubiquitination of NFKBIB, NFKBIE, ATF4, SMAD3, SMAD4, CDC25A, FBXO5 and probably NFKB2. SCF(BTRC) and/or SCF(FBXW11) direct ubiquitination of CEP68 (PubMed: 25503564, PubMed: 25704143). SCF(SKP2) directs ubiquitination of phosphorylated CDKN1B/p27kip and is involved in regulation of G1/S transition. SCF(SKP2) directs ubiquitination of ORC1, CDT1, RBL2, ELF4, CDKN1A, RAG2, FOXO1A, and probably MYC and TAL1. SCF(FBXW7) directs ubiquitination of CCNE1, NOTCH1 released notch intracellular domain (NICD), and probably PSEN1. SCF(FBXW2) directs ubiquitination of GCM1. SCF(FBXO32) directs ubiquitination of MYOD1. SCF(FBXO7) directs ubiquitination of BIRC2 and DLGAP5. SCF(FBXO33) directs ubiquitination of YBX1. SCF(FBXO1) directs ubiquitination of BCL6 and DTL but does not seem to direct ubiquitination of TP53. SCF(BTRC) mediates the ubiquitination of NFKBIA at 'Lys-21' and 'Lys- 22'; the degradation frees the associated NFKB1-RELA dimer to translocate into the nucleus and to activate transcription. SCF(CCNF) directs ubiquitination of CCP110. SCF(FBXL3) and SCF(FBXL21) direct ubiquitination of CRY1 and CRY2. SCF(FBXO9) directs ubiquitination of TTI1 and TELO2. SCF(FBXO10) directs ubiquitination of BCL2. Neddylated CUL1-RBX1 ubiquitinates p53/TP53 recruited by Cul7-RING(FBXW8) complex (PubMed: 35982156). SCF(BTRC) directs 'Lys-48'-linked ubiquitination of UBR2 in the T-cell receptor signaling pathway (PubMed: 38225265). The SCF(FBXO31) protein ligase complex specifically mediates the ubiquitination of proteins amidated at their C-terminus in response to oxidative stress (PubMed: 39880951).

Tissue Location

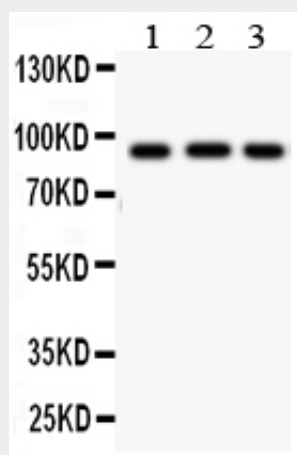
Expressed in lung fibroblasts.

Anti-Cullin 1 Antibody - Protocols

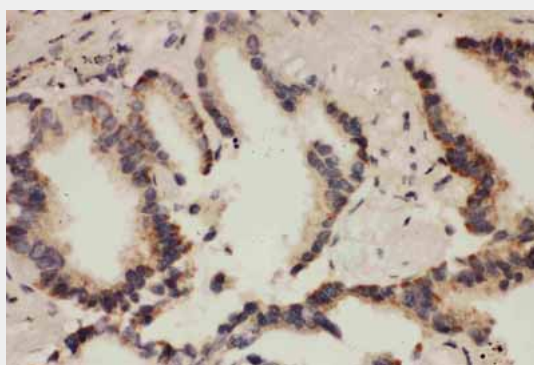
Provided below are standard protocols that you may find useful for product applications.

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

Anti-Cullin 1 Antibody - Images



Anti- Cullin 1 antibody, ABO10875, Western blotting
All lanes: Anti Cullin 1 (ABO10875) at 0.5ug/ml
Lane 1: MM453 Whole Cell Lysate at 40ug
Lane 2: HT1080 Whole Cell Lysate at 40ug
Lane 3: SMMC Whole Cell Lysate at 40ug
Predicted bind size: 90 KDa
Observed bind size: 90 KDa



Anti- Cullin 1 antibody, ABO10875, IHC(P)
IHC(P): Human Lung Cancer Tissue

Anti-Cullin 1 Antibody - Background

Cullin 1, also known as CUL1, is a human protein and gene from cullin family. This protein plays an important role in protein degradation and protein ubiquitination. This is an essential component of the SCF(SKP1-CUL1-F-box protein) E3 ubiquitin ligase complex, which mediates the ubiquitination of proteins involved in cell cycle progression, signal transduction and transcription. Human cullin 1, but not the other closely related cullins 2, 3, 4A, and 5, selectively interacts with human SKP1.