

## Product datasheet

# Anti-Cullin 1/CUL-1 antibody [EPR3102Y] ab75812

Recombinant RabMAb

★★★★★ 1 Abreviews 5 References 4 Images

### Overview

<b>Product name</b>	Anti-Cullin 1/CUL-1 antibody [EPR3102Y]
<b>Description</b>	Rabbit monoclonal [EPR3102Y] to Cullin 1/CUL-1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF <b>Unsuitable for:</b> IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human Cullin 1/CUL-1 aa 200-300. The exact sequence is proprietary.
<b>Positive control</b>	293T, A549 and T47D cell lysates; HeLa cells.
<b>General notes</b>	

Previously labelled as Cullin 1

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise<sup>™</sup> guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR3102Y
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab75812** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/2000. Predicted molecular weight: 90 kDa.
ICC/IF	★★★★★	1/100 - 1/250.

**Application notes** Is unsuitable for IHC-P or IP.

## Target

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**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. 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. 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 SCF complex depends on the F-box protein as substrate recognition component. 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(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 cyclin E, 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(FBXO11) 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(Cyclin F) directs ubiquitination of CP110.

**Tissue specificity**

Expressed in lung fibroblasts.

**Pathway**

Protein modification; protein ubiquitination.

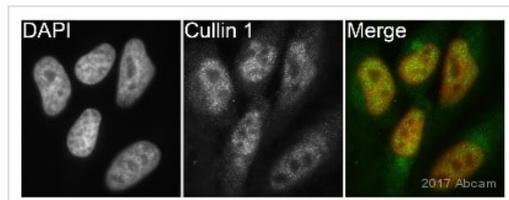
**Sequence similarities**

Belongs to the cullin family.

**Post-translational modifications**

Neddylated; which enhances the ubiquitination activity of SCF. Deneddylated via its interaction with the COP9 signalosome (CSN) complex. Deneddylated by Epstein-Barr virus BPLF1 leading to a S-phase-like environment that is required for efficient replication of the viral genome.

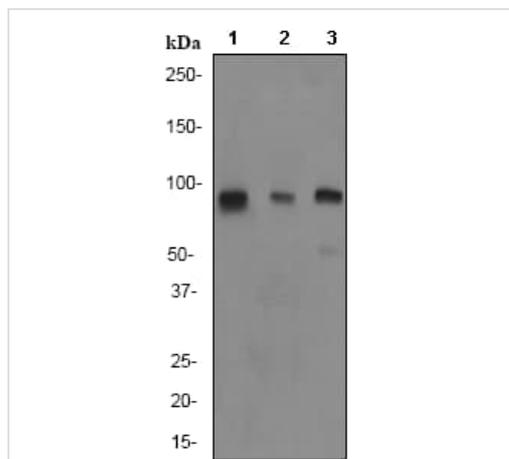
**Images**



Immunocytochemistry/ Immunofluorescence - Anti-Cullin 1/CUL-1 antibody [EPR3102Y] (ab75812)

This image is courtesy of an Abreview submitted by Kirk McManus, Univ. of Manitoba/Cancer Care MCB.

Immunocytochemistry/ Immunofluorescence analysis of HeLa cells labeling Cullin 1/CUL-1 with ab75812 at 1/400 dilution. Cells were fixed in paraformaldehyde and permeabilized with 0.5% Triton X-100 in PBS. Staining with ab75812 at 1/400 was carried in PBS buffer for 1 hour at 22°C. [ab150081](#), a Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed secondary antibody was used at 1/200 dilution. DAPI was used to counterstain.



Western blot - Anti-Cullin 1/CUL-1 antibody [EPR3102Y] (ab75812)

**All lanes** : Anti-Cullin 1/CUL-1 antibody [EPR3102Y] (ab75812) at 1/2000 dilution

**Lane 1** : 293T cell lysate

**Lane 2** : A549 cell lysate

**Lane 3** : T47D cell lysate

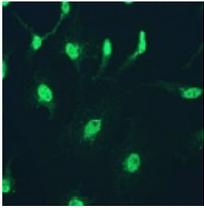
Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes** : goat anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 90 kDa

**Observed band size:** 90 kDa



ab75812 at 1/100 dilution staining Cullin 1/CUL-1 in HeLa cells by Immunofluorescence.

Immunocytochemistry/ Immunofluorescence - Anti-Cullin 1/CUL-1 antibody [EPR3102Y] (ab75812)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Cullin 1/CUL-1 antibody [EPR3102Y] (ab75812)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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