

# CUL-3 (H-293): sc-11385

## BACKGROUND

Cullin proteins comprise a distinct family of mediators that participate in the selective targeting of proteins for ubiquitin (Ub)-mediated proteolysis. CUL-1, which is the mammalian homolog of yeast Cdc53, is an integral component of the E3 ubiquitin ligase complex designated SCF. The SCF (Skp1/CUL-1/F-box protein complex) consists of Skp1 associating with both CUL-1 and an F-box protein, such as Skp2, which determines the substrate specificity of the complex. CUL-1-mediated ubiquitination results in the degradation of cell cycle proteins cyclin D, p21 and cyclin E. Another cullin, CUL-3, facilitates the degradation of cyclin E independent of SCF activity, while CUL-2 associates with the tumor suppressing protein VHL and Elongin B to form VBC complexes, which structurally resemble the SCF ligase. Proteolysis also occurs by way of CUL-4 associating with NEDD8, a ubiquitin-like protein, where it too functions as an active component of a multifunctional E3 complex. CUL-5, also designated vasopressin-activated, calcium-mobilizing protein (VACM-1), is also included in the cullin family as it shares substantial sequence homology with CUL-1.

## CHROMOSOMAL LOCATION

Genetic locus: CUL3 (human) mapping to 2q36.2; Cul3 (mouse) mapping to 1 C4.

## SOURCE

CUL-3 (H-293) is a rabbit polyclonal antibody raised against amino acids 1-293 of CUL-3 (cullin-3) of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CUL-3 (H-293) is recommended for detection of CUL-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

CUL-3 (H-293) is also recommended for detection of CUL-3 in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for CUL-3 siRNA (h): sc-35130, CUL-3 siRNA (m): sc-35131, CUL-3 shRNA Plasmid (h): sc-35130-SH, CUL-3 shRNA Plasmid (m): sc-35131-SH, CUL-3 shRNA (h) Lentiviral Particles: sc-35130-V and CUL-3 shRNA (m) Lentiviral Particles: sc-35131-V.

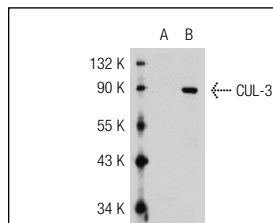
Molecular Weight of CUL-3: 89 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, CUL-3 (h): 293T Lysate: sc-111606 or CUL-3 (m): 293T Lysate: sc-119518.

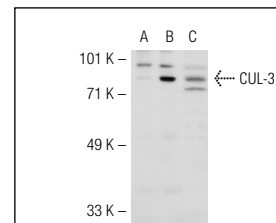
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CUL-3 (H-293): sc-11385. Western blot analysis of CUL-3 expression in non-transfected: sc-117752 (A) and human CUL-3 transfected: sc-111606 (B) 293T whole cell lysates.



CUL-3 (H-293): sc-11385. Western blot analysis of CUL-3 expression in non-transfected 293T: sc-117752 (A), mouse CUL-3 transfected 293T: sc-119518 (B) and NIH/3T3 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- McEvoy, J.D., et al. 2007. Constitutive turnover of cyclin E by CUL-3 maintains quiescence. *Mol. Cell. Biol.* 27: 3651-3666.
- Rondou, P., et al. 2008. BTB protein KLHL12 targets the Dopamine D4 receptor for ubiquitination by a CUL-3-based E3 ligase. *J. Biol. Chem.* 283: 11083-11096.
- Hollstein, P.E. and Cichowski, K. 2013. Identifying the ubiquitin ligase complex that regulates the NF1 tumor suppressor and Ras. *Cancer Discov.* 3: 880-893.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **CUL-3 (G-8): sc-166110** or **CUL-3 (C-3): sc-166054**, our highly recommended monoclonal alternatives to CUL-3 (H-293).