

# CUL-4 (H-66): sc-10782

## 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 Cdc53 from yeast, 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 Nedd-8, a ubiquitin-like protein, where it too functions as an active component of a multifunctional E3 complex. CUL-5, or 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: CUL4A (human) mapping to 13q34, CUL4B (human) mapping to Xq24; Cul4a (mouse) mapping to 8 A1.1, Cul4b (mouse) mapping to X A3.3.

## SOURCE

CUL-4 (H-66) is a rabbit polyclonal antibody raised against amino acids 536-597 mapping near the C-terminus of CUL-4 (cullin-4) 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.

## PROTOCOLS

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

## APPLICATIONS

CUL-4 (H-66) is recommended for detection of CUL-4A and CUL-4B 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CUL-4 (H-66) is also recommended for detection of CUL-4A and CUL-4B in additional species, including equine, canine, bovine, porcine and avian.

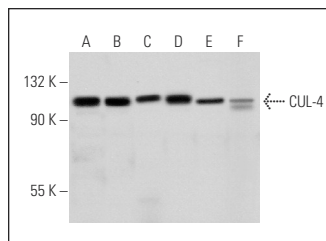
Molecular Weight of CUL-4: 80-85 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MCF7 whole cell lysate: sc-2206 or mouse testis extract: sc-2405.

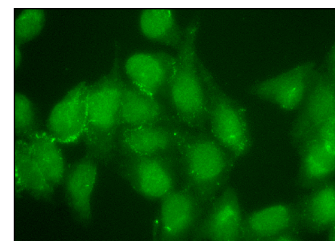
## RESEARCH USE

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

## DATA



CUL-4 (H-66): sc-10782. Western blot analysis of CUL-4 expression in HeLa (A), MCF7 (B), A549 (C), HEK293 (D) and Jurkat (E) whole cell lysates and mouse testis tissue extract (F).



CUL-4 (H-66): sc-10782. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear and cytoplasmic localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

## SELECT PRODUCT CITATIONS

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Try **CUL-4 (H-11): sc-377188**, our highly recommended monoclonal alternative to CUL-4 (H-66).