

## CUL-1 (57-269): sc-4425 WB

### 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.

### REFERENCES

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### SOURCE

CUL-1 (57-269) is expressed in *E. coli* as a 38 kDa tagged fusion protein corresponding to amino acids 57-269 of CUL-1 of human origin.

### STORAGE

Store at -20° C; stable for one year from the date of shipment.

### PRODUCT

CUL-1 (57-269) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

### APPLICATIONS

CUL-1 (57-269) is suitable as a Western blotting control for sc-11384 and sc-17775.

### RESEARCH USE

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