

CSN1 (N-13): sc-47855

BACKGROUND

The COP9 signalosome (CSN) complex is involved in several different developmental and cellular processes. The complex is made up of several widely expressed proteins: CSN1 (COPS1), CSN2 (COPS2), CSN3 (COPS3), CSN4 (COPS4), CSN5 (COPS5), CSN6 (COPS6), CSN7a (COPS7, COPS7a) or CSN7b (COPS7b) and CSN8 (COPS8). The CSN complex acts as a regulator for the ubiquitin conjugation pathway by mediating the deneddylation of the SCF-type E3 ligase complexes, which leads to a decrease in ubiquitin ligase activity of SCF-complexes. It is also involved in the phosphorylation of p53, c-Jun, IκBα and IRF-8, as well as the CSN-dependent phosphorylation of p53. c-Jun protects and promotes degradation by the Ubl system.

REFERENCES

1. Bech-Otschir, D., et al. 2001. COP9 signalosome-specific phosphorylation targets p53 to degradation by the ubiquitin system. *EMBO J.* 20: 1630-1639.
2. Lyapina, S., et al. 2001. Promotion of NEDD-CUL1 conjugate cleavage by COP9 signalosome. *Science* 292: 1382-1385.
3. Tsuge, T., et al. 2001. The subunit 1 of the COP9 signalosome suppresses gene expression through its N-terminal domain and incorporates into the complex through the PCI domain. *J. Mol. Biol.* 305: 1-9.
4. Mundt, K.E., et al. 2002. Deletion mutants in COP9/signalosome subunits in fission yeast *Schizosaccharomyces pombe* display distinct phenotypes. *Mol. Biol. Cell* 13: 493-502.
5. Groisman, R., et al. 2003. The ubiquitin ligase activity in the DDB2 and CSA complexes is differentially regulated by the COP9 signalosome in response to DNA damage. *Cell* 113: 357-367.
6. Uhle, S., et al. 2003. Protein kinase CK2 and protein kinase D are associated with the COP9 signalosome. *EMBO J.* 22: 1302-1312.
7. Harari-Steinberg, O. and Chamovitz, D.A. 2004. The COP9 signalosome: mediating between kinase signaling and protein degradation. *Curr. Protein Pept. Sci.* 5: 185-189.

CHROMOSOMAL LOCATION

Genetic locus: GPS1 (human) mapping to 17q25.3; Gps1 (mouse) mapping to 11 E2.

SOURCE

CSN1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CSN1 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.

Blocking peptide available for competition studies, sc-47855 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

CSN1 (N-13) is recommended for detection of CSN1 isoforms 1 and 2 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).

Suitable for use as control antibody for CSN1 siRNA (h): sc-60455, CSN1 siRNA (m): sc-60456, CSN1 shRNA Plasmid (h): sc-60455-SH, CSN1 shRNA Plasmid (m): sc-60456-SH, CSN1 shRNA (h) Lentiviral Particles: sc-60455-V and CSN1 shRNA (m) Lentiviral Particles: sc-60456-V.

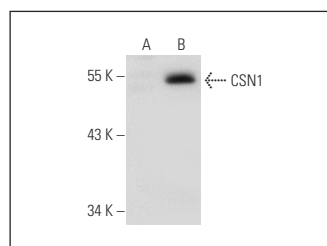
Molecular Weight of CSN1: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEL 92.1.7 cell lysate: sc-2270 or CSN1 (h): 293T Lysate: sc-110484.

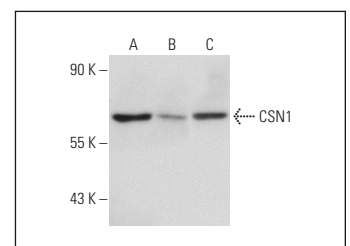
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CSN1 (N-13): sc-47855. Western blot analysis of CSN1 expression in non-transfected: sc-117752 (A) and human CSN1 transfected: sc-110484 (B) 293T whole cell lysates.



CSN1 (N-13): sc-47855. Western blot analysis of CSN1 expression in HeLa (A), HEL 92.1.7 (B) and NIH/3T3 (C) whole cell lysates.

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 or our catalog for detailed protocols and support products.