SANTA CRUZ BIOTECHNOLOGY, INC.

CSN1 (F-8): sc-377134

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The Power to Question

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), CSN7α (COPS7, COPS7α) or CSN7β (COPS7β) 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

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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., et al. 2004. The COP9 signalosome: mediating between kinase signaling and protein degradation. Curr. Protein Pept. Sci. 5: 185-189.
8. Wang, Y., et al. 2004. Hepatopoietin interacts directly with COP9 signalosome and regulates AP-1 activity. FEBS Lett. 572: 85-91.
9. Banda, N.K., et al. 2005. Intracellular IL-1 receptor antagonist type 1 inhibits IL production in keratinocytes through binding to the third component of the COP9 signalosome. J. Immunol. 174: 3608-3616.

CHROMOSOMAL LOCATION

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

SOURCE

CSN1 (F-8) is a mouse monoclonal antibody raised against amino acids 392-432 mapping near the C-terminus of CSN1 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CSN1 (F-8) is recommended for detection of CSN1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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.

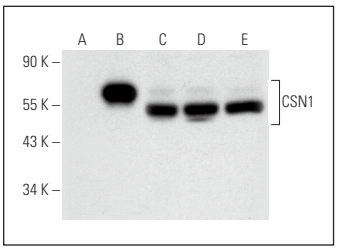
Molecular Weight of CSN1: 60 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, MCF7 whole cell lysate: sc-2206 or CSN1 (m): 293T Lysate: sc-125175.

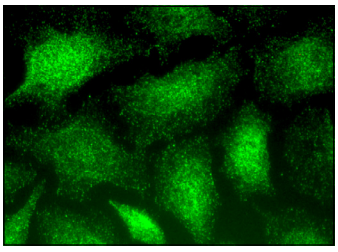
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CSN1 (F-8): sc-377134. Western blot analysis of CSN1 expression in non-transfected 293T: sc-117752 (**A**), mouse CSN1 transfected 293T: sc-125175 (**B**), HL-60 (**C**), MCF7 (**D**) and Raji (**E**) whole cell lysates.



CSN1 (F-8): sc-377134. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

STORAGE

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