SANTA CRUZ BIOTECHNOLOGY, INC.

CSN1 (m): 293T Lysate: sc-125175

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

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., 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.

CHROMOSOMAL LOCATION

Genetic locus: Gps1 (mouse) mapping to 11 E2.

PRODUCT

CSN1 (m): 293T Lysate represents a lysate of mouse CSN1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

CSN1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CSN1 antibodies. Recommended use: 10-20 µl per lane.

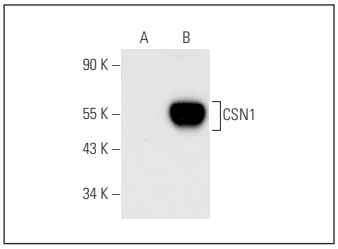
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CSN1 (E-4): sc-514086 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CSN1 expression in CSN1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

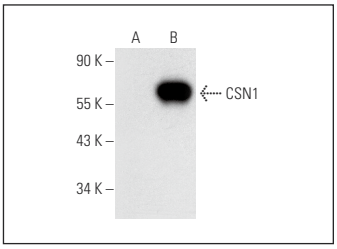
RECOMMENDED SUPPORT REAGENTS

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.

DATA



CSN1 (E-4): sc-514086. Western blot analysis of CSN1 expression in non-transfected: sc-117752 (**A**) and mouse CSN1 transfected: sc-125175 (**B**) 293T whole cell lysates.



CSN1 (F-8): sc-377134. Western blot analysis of CSN1 expression in non-transfected: sc-117752 (**A**) and mouse CSN1 transfected: sc-125175 (**B**) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.