

CSN7b (N-16): sc-47975

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 (COP6), CSN7a (COPS7, COPS7a) or CSN7b (COP7b) and CSN8 (COP8). 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, I κ B α and IRF-8, as well as CSN-dependent phosphorylation of p53, and c-Jun protects and promotes degradation by the Ubl system. CSN7 is phosphorylated by CK2 and is composed of two subunits; a and b. CSN7a contains a PCI (Proteasome CSN9 initiation factor 3) region, as well as a coiled-coil region and is predicted to interact with CSN2, CSN3, CSN4, CSN5, CSN6, CSN8 and GPS1. CSN7b contains only a PCI region and is predicted to interact with Int-6.

REFERENCES

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- Hoareau Alves, K., Bochar, V., Rety, S. and Jalinet, P. 2002. Association of the mammalian proto-oncoprotein Int-6 with the three protein complexes eIF3, COP9 signalosome and 26S Proteasome. *FEBS Lett.* 527: 15-21.
- Groisman, R., Polanowska, J., Kuraoka, I., Sawada, J., Saijo, M., Drapkin, R., Kisselev, A.F., Tanaka, K. and Nakatani, Y. 2003. The ubiquitin ligase activity in the DDB2 and regulated by the COP9 signalosome in response to DNA damage. *Cell* 113: 357-367.
- Uhle, S., Medalia, O., Waldron, R., Dumdey, R., Henklein, P., Bech-Otschir, D., Huang, X., Berse, M., Sperling, J., Schade, R. and Dubiel, W. 2003. Protein kinase CK2 and protein kinase D are associated with the COP9 signalosome. *EMBO J.* 22: 1302-1312.

CHROMOSOMAL LOCATION

Genetic locus: COPS7B (human) mapping to 2q37.1; Cops7b (mouse) mapping to 1 D.

SOURCE

CSN7b (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CSN7b of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47975 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CSN7b (N-16) is recommended for detection of CSN7b of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

CSN7b (N-16) is also recommended for detection of CSN7b in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CSN7b siRNA (h): sc-60465, CSN7b siRNA (m): sc-60466, CSN7b shRNA Plasmid (h): sc-60465-SH, CSN7b shRNA Plasmid (m): sc-60466-SH, CSN7b shRNA (h) Lentiviral Particles: sc-60465-V and CSN7b shRNA (m) Lentiviral Particles: sc-60466-V.

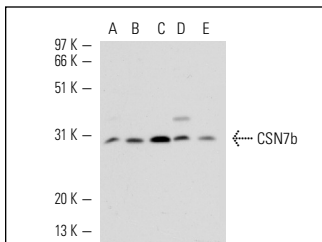
Molecular Weight of CSN7b: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HL-60 whole cell lysate: sc-2209 or CSN7b (m): 293T Lysate: sc-119485.

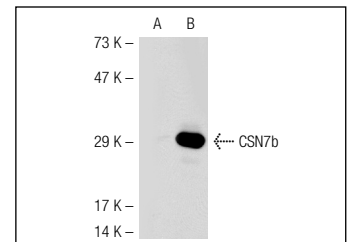
RECOMMENDED SECONDARY REAGENTS

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



CSN7b (N-16): sc-47975. Western blot analysis of CSN7b expression in HeLa (A), HL-60 (B) and Jurkat (C) whole cell lysates, and HeLa (D) and HL-60 (E) nuclear extracts.



CSN7b (N-16): sc-47975. Western blot analysis of CSN7b expression in non-transfected: sc-117752 (A) and mouse CSN7b transfected: sc-119485 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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