CSN7b (h2): 293T Lysate: sc-111513



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 (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, $I_{\rm K}B\alpha$ 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 INT6.

REFERENCES

- Seeger, M., Kraft, R., Ferrell, K., Bech-Otschir, D., Dumdey, R., Schade, R., Gordon, C., Naumann, M. and Dubiel, W. 1998. A novel protein complex involved in signal transduction possessing similarities to 26S proteasome subunits. FASEB J. 12: 469-478.
- Wei, N., Tsuge, T., Serino, G., Dohmae, N., Takio, K., Matsui, M. and Deng, X.W. 1998. The COP9 complex is conserved between plants and mammals and is related to the 26S proteasome regulatory complex. Curr. Biol. 8: 919-922.
- 3. Bech-Otschir, D., Kraft, R., Huang, X., Henklein, P., Kapelari, B., Pollmann, C. and Dubiel, W. 2001. COP9 signalosome-specific phosphorylation targets p53 to degradation by ubiquitin system. EMBO J. 20: 1630-1639.
- Hoareau Alves, K., Bochard, V., Réty, S. and Jalinot, P. 2002. Association of the complexes Elf-3, COP9 signalosome and 26S proteasome. FEBS Lett. 527: 15-21.
- 5. Groisman, R., Polanowska, J., Kuraoka, I., Sawada, J., Saijo, M., Drapkin, R., Kisselev, AF., 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.
- Berse, M., Bounpheng, M., Huang, X., Christy, B., Pollmann, C. and Dubiel, W. 2004. Ubiquitin-dependent degradation of ld1 and ld3 is mediated by the COP9 signalosome. J. Mol. Biol. 343: 361-370.
- 7. Gemmill, R.M., Lee, J.P., Chamovitz, D.A., Segal, D., Hooper, J.E. and Drabkin, H.A. 2005. Growth suppression induced by the TRC8 hereditary kidney cancer gene is dependent upon JAB1/CSN5. Oncogene 24: 3503-3511.

CHROMOSOMAL LOCATION

Genetic locus: COPS7B (human) mapping to 2q37.1.

PRODUCT

CSN7b (h2): 293T Lysate represents a lysate of human CSN7b transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

CSN7b (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CSN7b 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.

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.

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**