

CSN3 (RR12): sc-100693

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. Additionally, c-Jun protects and promotes degradation by the Ubl system.

REFERENCES

- Uhle, S., et al. 2003. Protein kinase CK2 and protein kinase D are associated with the COP9 signalosome. *EMBO J.* 22: 1302-1312.
- Henriksen, J., et al. 2003. Amp TP53 for proteasome-mediated degradation. *Oncogene* 22: 5358-5361.
- Yan, J., et al. 2003. COP9 signalosome subunit 3 is essential for maintenance of cell proliferation in the mouse embryonic epiblast. *Mol. Cell. Biol.* 23: 6798-6808.
- van Dartel, M. and Hulsebos, T.J. 2004. Amplification and overexpression of genes in 17p11.2-p12 in osteosarcoma. *Cancer Genet. Cytogenet.* 153: 77-80.

CHROMOSOMAL LOCATION

Genetic locus: COPS3 (human) mapping to 17p11.2; Cops3 (mouse) mapping to 11 B1.3.

SOURCE

CSN3 (RR12) is a mouse monoclonal antibody raised against amino acids 324-423 representing the C-terminus CSN3 of human origin.

PRODUCT

Each vial contains 50 μ g IgG_{2a} kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CSN3 (RR12) is recommended for detection of CSN3 of mouse, rat 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).

Suitable for use as control antibody for CSN3 siRNA (h): sc-60457, CSN3 siRNA (m): sc-60458, CSN3 shRNA Plasmid (h): sc-60457-SH, CSN3 shRNA Plasmid (m): sc-60458-SH, CSN3 shRNA (h) Lentiviral Particles: sc-60457-V and CSN3 shRNA (m) Lentiviral Particles: sc-60458-V.

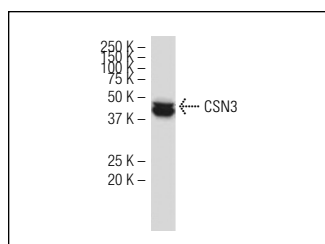
Molecular Weight of CSN3: 48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

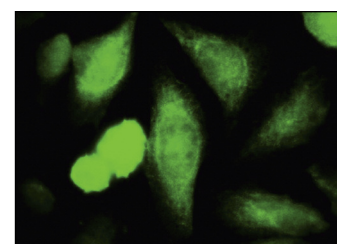
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



CSN3 (RR12): sc-100693. Western blot analysis of CSN3 expression in HeLa whole cell lysate.



CSN3 (RR12): sc-100693. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Kim, E., et al. 2011. Function of COP9 signalosome in regulation of mouse oocytes meiosis by regulating MPF activity and securing degradation. *PLoS ONE* 6: e25870.
- Lee, Y.H., et al. 2011. Molecular targeting of CSN5 in human hepatocellular carcinoma: a mechanism of therapeutic response. *Oncogene* 30: 4175-4184.
- Stotland, A., et al. 2012. Purification of the COP9 signalosome complex and binding partners from human T cells. *OMICS* 16: 312-319.
- Asare, Y., et al. 2013. Endothelial CSN5 impairs NF κ B activation and monocyte adhesion to endothelial cells and is highly expressed in human atherosclerotic lesions. *Thromb. Haemost.* 110: 141-152.
- Golan, A., et al. 2016. Immunodepletion and immunopurification as approaches for CSN research. *Methods Mol. Biol.* 1449: 103-116.
- Xu, M., et al. 2018. SHMT2 and the BRCC36/BRISC deubiquitinase regulate HIV-1 Tat K63-ubiquitylation and destruction by autophagy. *PLoS Pathog.* 14: e1007071.

STORAGE

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

RESEARCH USE

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