

CRMP-4 (h2): 293T Lysate: sc-115516

BACKGROUND

Collapsin response mediator proteins (CRMPs), including CRMP-1 (DRP-1), CRMP-2 (DRP-2 or TOAD64), CRMP-3 (DRP-4), CRMP-4 (DRP-3) and CRMP-5 (DRP-5), mediate signal transduction after exposure of neural cells to the axon guidance molecule Semaphorin 3A (SEMA3A)/collapsin. CRMPs are present in the developing cerebral cortex and neocortical neurons and are responsive to SEMA3A. In the adult brain, the expression of CRMPs is dramatically down-regulated. However, they remain expressed in structures that retain their capacity for differentiation and plasticity. Developing neurons in the adult hippocampus of mammals, known as the dentate gyrus, express CRMP-4. Rodent neocortical neurons express CRMP-4 in the perikaryon, in neurites, and at growth cones.

REFERENCES

1. Kato, Y., et al. 1998. Post-meiotic expression of the mouse dihydropyrimidine-inase-related protein 3 (DRP-3) gene during spermiogenesis. *Mol. Reprod. Dev.* 51: 105-111.
2. Nacher, J., et al. 2002. CRMP-4 expression in the adult cerebral cortex and other telencephalic areas of the lizard *Podarcis hispanica*. *Brain Res. Dev. Brain Res.* 139: 285-294.
3. Seki, T. 2002. Expression patterns of immature neuronal markers PSA-NCAM, CRMP-4 and NeuroD in the hippocampus of young adult and aged rodents. *J. Neurosci. Res.* 70: 327-334.
5. Rosslenbroich, V., et al. 2003. Subcellular localization of collapsin response mediator proteins to lipid rafts. *Biochem. Biophys. Res. Commun.* 305: 392-399.
6. Liu, P.C., et al. 2003. Induction of CRMP-4 in striatum of adult rat after transient brain ischemia. *Acta Pharmacol. Sin.* 24: 1205-1211.
7. Rosslenbroich, V., et al. 2003. Subcellular localization of collapsin response mediator proteins to lipid rafts. *Biochem. Biophys. Res. Commun.* 305: 392-399.
8. Quach, T.T., et al. 2004. Involvement of collapsin response mediator proteins in the neurite extension induced by neurotrophins in dorsal root ganglion neurons. *Mol. Cell. Neurosci.* 25: 433-443.

CHROMOSOMAL LOCATION

Genetic locus: DPYSL3 (human) mapping to 5q32.

PRODUCT

CRMP-4 (h2): 293T Lysate represents a lysate of human CRMP-4 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.

PROTOCOLS

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

APPLICATIONS

CRMP-4 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CRMP-4 antibodies. Recommended use: 10-20 µl per lane.

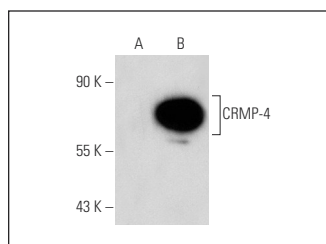
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CRMP-4 (LL-5): sc-100323 is recommended as a positive control antibody for Western Blot analysis of enhanced human CRMP-4 expression in CRMP-4 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



CRMP-4 (LL-5): sc-100323. Western blot analysis of CRMP-4 expression in non-transfected: sc-117752 (A) and human CRMP-4 transfected: sc-115516 (B) 293T whole cell lysates.

RESEARCH USE

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