

CRMP-4 (h): 293T Lysate: sc-111426

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 downregulated. 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 dihydropyrimidinase-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.
4. 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.
5. Rosslenbroich, V., et al. 2003. Subcellular localization of collapsin response mediator proteins to lipid rafts. *Biochem. Biophys. Res. Commun.* 305: 392-399.
6. 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 (h): 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.

APPLICATIONS

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

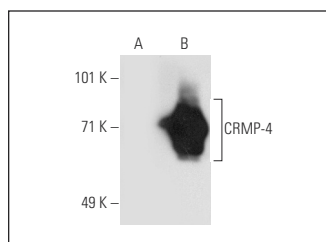
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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-111426 (B) 293T whole cell lysates.

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.