

CRMP-2 (h2): 293T Lysate: sc-116677

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/collapsin. CRMPs are present in the developing cerebral cortex and neocortical neurons and are responsive to Semaphorin 3A. 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. CRMP-2 is involved in axonal growth and guidance. The human CRMP-2 gene is located on 8p21.2, a chromosomal region that has been previously shown to have a significant linkage to schizophrenia and to several deficit symptoms of schizophrenia.

REFERENCES

1. Kitamura, K., et al. 1999. Characterization of the human dihydropyrimidinase-related protein 2 (DRP-2) gene. *DNA Res.* 6: 291-297.
2. Gu, Y., et al. 2000. Neurofibrillary tangle-associated collapsin response mediator protein-2 (CRMP-2) is highly phosphorylated on Thr 509, Ser 518 and Ser 522. *Biochemistry* 6: 4267-4275.
3. Nakata, K., 2003. The human dihydropyrimidinase-related protein 2 gene on chromosome 8p21 is associated with paranoid-type schizophrenia. *Biol. Psychiatry* 53: 571-576.
4. Rosslenbroich, V., et al. 2003. Subcellular localization of collapsin response mediator proteins to lipid rafts. *Biochem. Biophys. Res. Commun.* 305: 392-399.
5. 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.
6. Hong, L.E., et al. 2005. Dihydropyrimidinase-related protein 2 (DRP2) gene and association to deficit and nondeficit schizophrenia. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 136: 8-11

CHROMOSOMAL LOCATION

Genetic locus: DPYSL2 (human) mapping to 8p21.2.

PRODUCT

CRMP-2 (h2): 293T Lysate represents a lysate of human CRMP-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CRMP-2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CRMP-2 antibodies. Recommended use: 10-20 µl per lane.

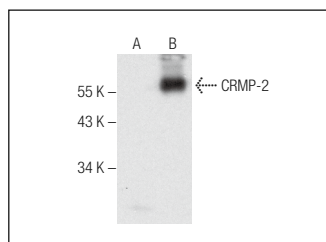
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CRMP-2 (E-9): sc-376739 is recommended as a positive control antibody for Western Blot analysis of enhanced human CRMP-2 expression in CRMP-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

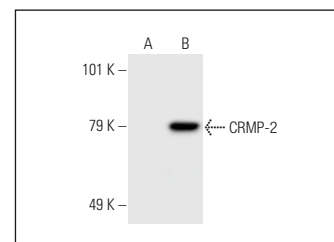
RECOMMENDED SUPPORT REAGENTS

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-2 (E-9): sc-376739. Western blot analysis of CRMP-2 expression in non-transfected: sc-117752 (A) and human CRMP-2 transfected: sc-116677 (B) 293T whole cell lysates.



CRMP-2 (1B1): sc-101348. Western blot analysis of CRMP-2 expression in non-transfected: sc-117752 (A) and human CRMP-2 transfected: sc-116677 (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.