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


CHROMOSOMAL LOCATION

Genetic locus: DPYSL3 (human) mapping to 5q32; Dpysl3 (mouse) mapping to 18 B3.

SOURCE

CRMP-4 (LL-5) is a mouse monoclonal antibody raised against recombinant CRMP-4 of human origin.

PRODUCT

Each vial contains 100 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

CRMP-4 (LL-5) is recommended for detection of CRMP-4 of mouse, rat and human origin by Western Blotting (starting dilution: 1:200, dilution range: 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution: 1:30, dilution range: 1:30-1:3000).

Suitable for use as control antibody for CRMP-4 siRNA (h): sc-44487, CRMP-4 siRNA (m): sc-44488, CRMP-4 shRNA Plasmid (h): sc-44487-SH, CRMP-4 shRNA Plasmid (m): sc-44488-SH, CRMP-4 shRNA (h) Lentiviral Particles: sc-44487-L and CRMP-4 shRNA (m) Lentiviral Particles: sc-44488-L.

Molecular Weight of CRMP-4: 65 kDa.


RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG 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 Luminal Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA

SELECT PRODUCT CITATIONS


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.