

CRMP-5 (H-85): sc-292382

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. CRMP-5, which is phylogenetically divergent from the other four CRMPs, is expressed in the filopodia of growth cones as well as in adult central and peripheral neurons, including synapses. The paraneoplastic CRMP-5 autoantibody (CRMP-5-IgG) is also associated with small-cell lung carcinoma or thymoma.

REFERENCES

1. Thambisetty, M.R., et al. 2001. Paraneoplastic optic neuropathy and cerebellar ataxia with small cell carcinoma of the lung. *J. Neuroophthalmol.* 21: 164-167.
2. Yu, Z., et al. 2001. CRMP-5 neuronal autoantibody: marker of lung cancer and thymoma-related autoimmunity. *Ann. Neurol.* 49: 146-154.

CHROMOSOMAL LOCATION

Genetic locus: DPYSL5 (human) mapping to 2p23.3; Dpysl5 (mouse) mapping to 5 B1.

SOURCE

CRMP-5 (H-85) is a rabbit polyclonal antibody raised against amino acids 451-535 mapping near the C-terminus of CRMP-5 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CRMP-5 (H-85) is recommended for detection of CRMP-5 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)], 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).

CRMP-5 (H-85) is also recommended for detection of CRMP-5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CRMP-5 siRNA (h): sc-60449, CRMP-5 siRNA (m): sc-60450, CRMP-5 shRNA Plasmid (h): sc-60449-SH, CRMP-5 shRNA Plasmid (m): sc-60450-SH, CRMP-5 shRNA (h) Lentiviral Particles: sc-60449-V and CRMP-5 shRNA (m) Lentiviral Particles: sc-60450-V.

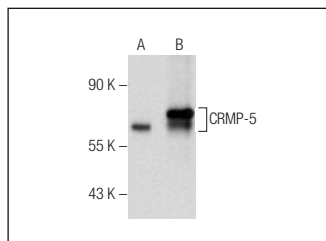
Molecular Weight of CRMP-5: 62 kDa.

Positive Controls: Y79 cell lysate: sc-2240, SK-N-SH cell lysate: sc-2410 or CRMP-5 (h): 293T Lysate: sc-176143.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CRMP-5 (H-85): sc-292382. Western blot analysis of CRMP-5 expression in non-transfected: sc-117752 (A) and human CRMP-5 transfected: sc-176143 (B) 293T whole cell lysates.

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.

PROTOCOLS

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



Try **CRMP-5 (CR-1): sc-58515** or **CRMP-5 (C-7): sc-374320**, our highly recommended monoclonal alternatives to CRMP-5 (H-85).