

# CRMP-2 (E-9): sc-376739

## 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. CRMP-2 is involved in axonal growth and guidance. The human CRMP-2 gene maps to 8p21.2, a chromosomal region that has been previously shown to have a significant linkage to schizophrenia and to several deficit symptoms of schizophrenia.

## CHROMOSOMAL LOCATION

Genetic locus: DPYSL2 (human) mapping to 8p21.2; Dpysl2 (mouse) mapping to 14 D1.

## SOURCE

CRMP-2 (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 509-543 near the C-terminus of CRMP-2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376739 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

CRMP-2 (E-9) is recommended for detection of CRMP-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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-2 (E-9) is also recommended for detection of CRMP-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CRMP-2 siRNA (h): sc-44485, CRMP-2 siRNA (m): sc-44486, CRMP-2 shRNA Plasmid (h): sc-44485-SH, CRMP-2 shRNA Plasmid (m): sc-44486-SH, CRMP-2 shRNA (h) Lentiviral Particles: sc-44485-V and CRMP-2 shRNA (m) Lentiviral Particles: sc-44486-V.

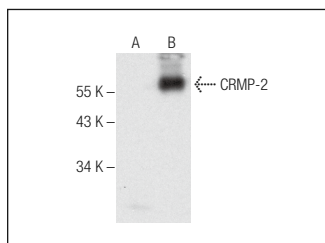
Molecular Weight of CRMP-2: 64 kDa.

Positive Controls: CRMP-2 (h): 293T Lysate: sc-116677.

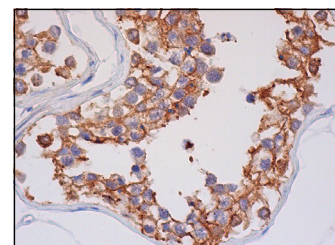
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## 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 (E-9): sc-376739. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and membrane staining of cells in seminiferous ducts.

## SELECT PRODUCT CITATIONS

- Shah, F.A., et al. 2019. Melatonin protects MCAO-induced neuronal loss via NR2A mediated pro-survival pathways. *Front. Pharmacol.* 10: 297.
- Agrawal, L., et al. 2019. Role of serotonin 4 receptor in the growth of hippocampal neurons during the embryonic development in mice. *Neuropharmacology* 158: 107712.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.