

CRMP-1 (C-18): sc-46872

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-1 is also involved in cancer invasion and metastasis.

REFERENCES

1. Torres, R. and Polymeropoulos, M.H. 1999. Genomic organization and localization of the human CRMP-1 gene. *DNA Res.* 5: 393-395.
2. Shih, J.Y., et al. 2003. CRMP-1: a novel invasion-suppressor gene. *Clin. Exp. Metastasis* 20: 69-76.

CHROMOSOMAL LOCATION

Genetic locus: CRMP1 (human) mapping to 4p16.2; Crmp1 (mouse) mapping to 5 B3.

SOURCE

CRMP-1 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CRMP-1 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.

Blocking peptide available for competition studies, sc-46872 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRMP-1 (C-18) is recommended for detection of CRMP-1 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), 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-1 (C-18) is also recommended for detection of CRMP-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CRMP-1 siRNA (h): sc-60445, CRMP-1 siRNA (m): sc-60446, CRMP-1 shRNA Plasmid (h): sc-60445-SH, CRMP-1 shRNA Plasmid (m): sc-60446-SH, CRMP-1 shRNA (h) Lentiviral Particles: sc-60445-V and CRMP-1 shRNA (m) Lentiviral Particles: sc-60446-V.

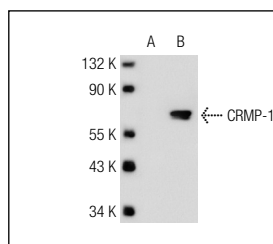
Molecular Weight of CRMP-1: 66 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or CRMP-1 (h): 293T Lysate: sc-176660.

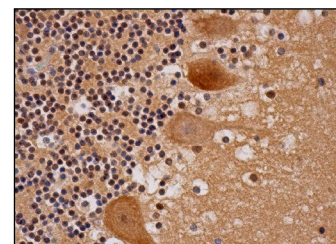
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



CRMP-1 (C-18): sc-46872. Western blot analysis of CRMP-1 expression in non-transfected: sc-117752 (A) and human CRMP-1 transfected: sc-176660 (B) 293T whole cell lysates.



CRMP-1 (C-18): sc-46872. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic and nuclear staining of Purkinje cells, cells in granular layer and cells in molecular layer.

SELECT PRODUCT CITATIONS

1. Buel, G.R., et al. 2010. Fyn promotes phosphorylation of collapsin response mediator protein 1 at tyrosine 504, a novel, isoform-specific regulatory site. *J. Cell. Biochem.* 111: 20-28.
2. Clewes, O., et al. 2011. Human epidermal neural crest stem cells (hEPI-NCSC)—characterization and directed differentiation into osteocytes and melanocytes. *Stem Cell Rev.* 7: 799-814.

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.

MONOS
Satisfaction
Guaranteed

Try **CRMP-1 (D-4): sc-365348**, our highly recommended monoclonal alternative to CRMP-1 (C-18).