

# CRMP-3 (C-20): sc-51054

## 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 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-3 is expressed transiently in developing spinal cord and selectively in the postnatal cerebellum. It is cleaved by Calpain to produce a p54 N-terminal fragment. This cleavage product translocates to the nucleus and induces neuronal death in response to excitotoxicity and cerebral ischemia.

## CHROMOSOMAL LOCATION

Genetic locus: DPYSL4 (human) mapping to 10q26.3; Dpysl4 (mouse) mapping to 7 F4.

## SOURCE

CRMP-3 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CRMP-3 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-51054 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

CRMP-3 (C-20) is recommended for detection of CRMP-3 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-3 (C-20) is also recommended for detection of CRMP-3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CRMP-3 siRNA (h): sc-60447, CRMP-3 siRNA (m): sc-60448, CRMP-3 shRNA Plasmid (h): sc-60447-SH, CRMP-3 shRNA Plasmid (m): sc-60448-SH, CRMP-3 shRNA (h) Lentiviral Particles: sc-60447-V and CRMP-3 shRNA (m) Lentiviral Particles: sc-60448-V.

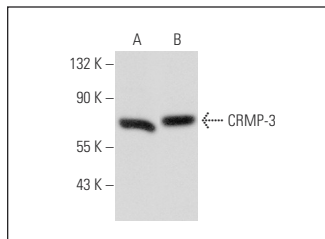
Molecular Weight of CRMP-3: 63/54 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or human cerebellum tissue extract.

## 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.

## DATA



CRMP-3 (C-20): sc-51054. Western blot analysis of CRMP-3 expression in human cerebellum tissue extract (A) and IMR-32 whole cell lysate (B).

## 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) or our catalog for detailed protocols and support products.

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Try **CRMP (D-5): sc-377155**, our highly recommended monoclonal alternative to CRMP-3 (C-20).