

# Myelin P2 (A-3): sc-393173

## BACKGROUND

Peripheral Myelin protein-2 (PMP2, Myelin P2, MP2), a small basic enzyme, is one of the principal proteins of peripheral Myelin and presumably participates in the transport of fatty acids or the metabolism of Myelin lipids. Myelin P2 is similar in amino acid sequence and tertiary structure to fatty acid binding proteins found in the liver, adipocytes and intestine, although its expression is restricted to the nervous system. Research indicates that Myelin P2 may play an important role in the organization of compact Myelin; the protein is detected only in Myelin-producing cells of the central and peripheral nervous systems. The 5' flanking region of the Myelin P2 gene contains a TA-rich element (TATA-like box) and a single, distinct transcription initiation site. The gene maps to 8q21.13 and encodes a cytosolic protein.

## REFERENCES

1. Shin, H.C., et al. 1989. Induction of experimental allergic neuritis with synthetic peptides from Myelin P2 protein. *Neurosci. Lett.* 102: 309-312.
2. Narayanan, V., et al. 1991. Structure of the mouse Myelin P2 protein gene. *J. Neurochem.* 57: 75-80.
3. Bharucha, V.A., et al. 1993. Characterization of the *cis*-acting elements of the mouse Myelin P2 promoter. *J. Neurosci. Res.* 36: 508-519.
4. Narayanan, V., et al. 1994. Partial structure and mapping of the human Myelin P2 protein gene. *J. Neurochem.* 63: 2010-2013.
5. Weishaupt, A., et al. 1995. T cell antigenic and neuritogenic activity of recombinant human peripheral Myelin P2 protein. *J. Neuroimmunol.* 63: 149-156.

## CHROMOSOMAL LOCATION

Genetic locus: PMP2 (human) mapping to 8q21.13; Pmp2 (mouse) mapping to 3 A1.

## SOURCE

Myelin P2 (A-3) is a mouse monoclonal antibody raised against amino acids 18-56 mapping near the N-terminus of Myelin P2 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.

Myelin P2 (A-3) is available conjugated to agarose (sc-393173 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393173 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393173 PE), fluorescein (sc-393173 FITC), Alexa Fluor® 488 (sc-393173 AF488), Alexa Fluor® 546 (sc-393173 AF546), Alexa Fluor® 594 (sc-393173 AF594) or Alexa Fluor® 647 (sc-393173 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393173 AF680) or Alexa Fluor® 790 (sc-393173 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## APPLICATIONS

Myelin P2 (A-3) is recommended for detection of Myelin P2 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).

Suitable for use as control antibody for Myelin P2 siRNA (h): sc-61113, Myelin P2 siRNA (m): sc-61114, Myelin P2 shRNA Plasmid (h): sc-61113-SH, Myelin P2 shRNA Plasmid (m): sc-61114-SH, Myelin P2 shRNA (h) Lentiviral Particles: sc-61113-V and Myelin P2 shRNA (m) Lentiviral Particles: sc-61114-V.

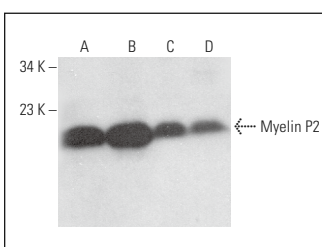
Molecular Weight of Myelin P2: 15 kDa.

Positive Controls: F9 cell lysate: sc-2245, Neuro-2A whole cell lysate: sc-364185 or SH-SY5Y cell lysate: sc-3812.

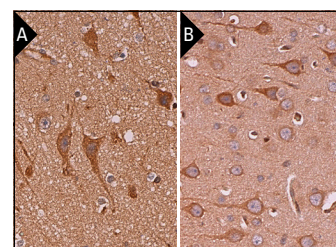
## RECOMMENDED SUPPORT REAGENTS

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



Myelin P2 (A-3): sc-393173. Western blot analysis of Myelin P2 expression in F9 (A), Neuro-2A (B) and SH-SY5Y (C) whole cell lysates and rat brain tissue extract (D).



Myelin P2 (A-3): sc-393173. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells, glial cells, endothelial cells and neuropil staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat brain tissue showing cytoplasmic staining of neuronal cells, glial cells, endothelial cells and neuropil staining (B).

## STORAGE

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