

Myelin P2 (N-16): sc-49304

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

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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. 1994. 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.
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6. Xiao, J., et al. 2004. Evidence that a major site of expression of the RHO-GTPASE activating protein, oligophrenin-1, is peripheral myelin. *Neuroscience* 124: 781-787.
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8. Hunter, D.J., et al. 2005. Structure of Myelin P2 protein from equine spinal cord. *Acta Crystallogr. D Biol. Crystallogr.* 61: 1067-1071.
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CHROMOSOMAL LOCATION

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

SOURCE

Myelin P2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Myelin P2 of human origin.

RESEARCH USE

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

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-49304 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Myelin P2 (N-16) is recommended for detection of Myelin P2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Myelin P2 (N-16) is also recommended for detection of Myelin P2 in additional species, including equine, canine, bovine and porcine.

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.

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) 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.

STORAGE

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

PROTOCOLS

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



Try **Myelin P2 (A-3): sc-393173** or **Myelin P2 (B-11): sc-374058**, our highly recommended monoclonal alternatives to Myelin P2 (N-16).