

MOBP (P-18): sc-14520

BACKGROUND

The gene encoding MOBP (myelin-associated oligodendrocytic basic protein), a member of the central nervous system myelin-constituting proteins, maps to chromosome 3p22.1. MOBP has many splice variants that share a 68 amino acid N-terminal domain. MOBP-71, MOBP-81A, MOBP-99, and MOBP-169 are MOBP splice variants that contain exon 8b, which is similar to myelin basic protein (MBP) mRNA RTS, however MOBP-69, MOBP-81B, and MOBP-170 lack this exon. The splice variants that contain exon 8b are expressed in myelin, while those lacking exon 8b are retained in the oligodendrocyte soma. Exon 8b-containing variants are directed to sites of myelin sheath assembly by exon 8b, where they play a structural role in myelin formation. Splice variants lacking exon 8b likely play a cellular and/or regulatory role. MOBP is implicated in multiple sclerosis (MS), a human demyelinating disease, and in allergic encephalomyelitis in rodents.

REFERENCES

- Rameshwar, P. and Gascon, P. 1995. Substance P (SP) mediates production of stem cell factor and interleukin-1 in bone marrow stroma: potential autoregulatory role for these cytokines in SP receptor expression and induction. *Blood* 86: 482-490.
- Rameshwar, P. and Gascon, P. 1997. Hematopoietic modulation by the tachykinins. *Acta Haematol.* 98: 59-64.
- Zerari, F., et al. 1997. Immunoelectron microscopic localization of NK-3 receptor in the rat spinal cord. *Neuroreport* 8: 2661-2664.
- Renzi, D., et al. 2000. Substance P (neurokinin-1) and neurokinin A (neurokinin-2) receptor gene and protein expression in the healthy and inflamed human intestine. *Am. J. Pathol.* 157: 1511-1522.
- Sarau, H.M., et al. 2000. Evidence that the proposed novel human "neurokinin-4" receptor is pharmacologically similar to the human neurokinin-3 receptor but is not of human origin. *Mol. Pharmacol.* 58: 552-559.

CHROMOSOMAL LOCATION

Genetic locus: MOBP (human) mapping to 3p22.1; Mbp (mouse) mapping to 9 F4.

SOURCE

MOBP (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MOBP 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-14520 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

MOBP (P-18) is recommended for detection of MOBP 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).

Suitable for use as control antibody for MOBP siRNA (h): sc-35953, MOBP siRNA (m): sc-35954, MOBP shRNA Plasmid (h): sc-35953-SH, MOBP shRNA Plasmid (m): sc-35954-SH, MOBP shRNA (h) Lentiviral Particles: sc-35953-V and MOBP shRNA (m) Lentiviral Particles: sc-35954-V.

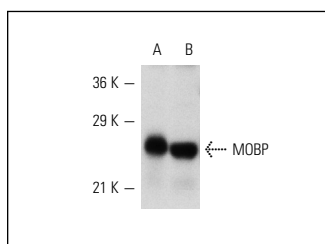
Molecular Weight of MOBP: 25 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

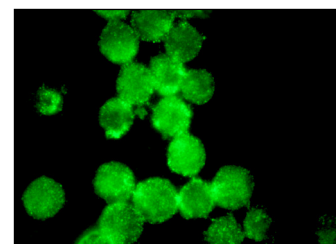
RECOMMENDED SECONDARY REAGENTS

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.

DATA



MOBP (P-18): sc-14520. Western blot analysis of MOBP isoform expression in rat (A) and mouse (B) brain extracts.



MOBP (P-18): sc-14520. Immunofluorescence staining of methanol-fixed EOC 20 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Laterza, O.F., et al. 2006. Identification of novel brain biomarkers. *Clin. Chem.* 52: 1713-1721.

RESEARCH USE

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

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Try **MOBP (4C2): sc-517016**, our highly recommended monoclonal alternative to MOBP (P-18).