

MOBP (4C2): sc-517016

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

1. Rameshwar, P., et al. 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.
2. Rameshwar, P., et al. 1997. Hematopoietic modulation by the tachykinins. *Acta Haematol.* 98: 59-64.
3. Zerari, F., et al. 1997. Immunoelectron microscopic localization of NK-3 receptor in the rat spinal cord. *Neuroreport* 8: 2661-2664.
4. 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.
5. 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.

CHROMOSOMAL LOCATION

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

SOURCE

MOBP (4C2) is a mouse monoclonal antibody raised against amino acids 1-81 representing full length MOBP of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

MOBP (4C2) 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), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] 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.

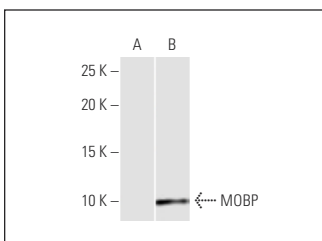
Molecular Weight of MOBP: 25 kDa.

Positive Controls: MOBP transfected 293T whole cell lysate.

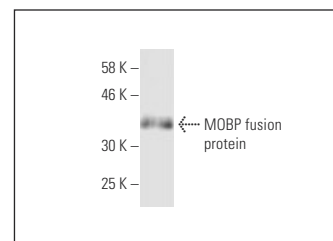
RECOMMENDED SUPPORT REAGENTS

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, 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).

DATA



MOBP (4C2): sc-517016. Western blot analysis of MOBP expression in non-transfected (A) and MOBP transfected (B) 293T whole cell lysates.



MOBP (4C2): sc-517016. Western blot analysis of human recombinant MOBP fusion protein.

RESEARCH USE

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

PROTOCOLS

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