

MYEF2 (W-19): sc-102031

BACKGROUND

Myelin basic protein (MBP) binds to negatively charged lipids on the cytosolic surface of oligodendrocyte membranes and is responsible for adhesion of these surfaces in multilayered Myelin sheaths. As a member of a larger family of proteins with many forms and post-translational modifications, MBP appears to have several other functions as a result of these modifications, including participating in the transmission of extracellular signals, as well as cell signaling. These modifications of MBP are dynamic during normal central nervous system (CNS) development and during Myelin degeneration in multiple sclerosis (MS). Regulation of the human MBP gene occurs at the MB1 regulatory motif located between nucleotides -14 to -50. The MB1 element contains binding sites for both the activator protein MEF-1/Pur α and the repressor protein MYEF2. MYEF2 is a nuclear protein whose expression is developmentally regulated in mouse brain with peak expression occurring at post-natal day 7. Four isoforms of MYEF2 exist due to alternative splicing events.

REFERENCES

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- Harauz, G., et al. 2004. Myelin basic protein-diverse conformational states of an intrinsically unstructured protein and its roles in Myelin assembly and multiple sclerosis. *Micron* 35: 503-542.
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- Harauz, G. and Musse, A.A. 2007. A tale of two citrullines—structural and functional aspects of Myelin basic protein deimination in health and disease. *Neurochem. Res.* 32: 137-158.

CHROMOSOMAL LOCATION

Genetic locus: MYEF2 (human) mapping to 15q21.1; Myef2 (mouse) mapping to 2 F1.

SOURCE

MYEF2 (W-19) is a purified rabbit polyclonal antibody raised against MYEF2 of human origin.

STORAGE

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

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

MYEF2 (W-19) is recommended for detection of MYEF2 of mouse, rat, human and dog origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 MYEF2 siRNA (h): sc-89969, MYEF2 siRNA (m): sc-149735, MYEF2 shRNA Plasmid (h): sc-89969-SH, MYEF2 shRNA Plasmid (m): sc-149735-SH, MYEF2 shRNA (h) Lentiviral Particles: sc-89969-V and MYEF2 shRNA (m) Lentiviral Particles: sc-149735-V.

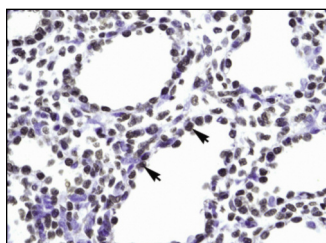
Molecular Weight of MYEF2: 64 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

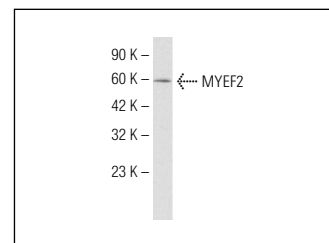
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



MYEF2 (W-19): sc-102031. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear staining.



MYEF2 (W-19): sc-102031. Western blot analysis of MYEF2 expression in Jurkat whole cell lysate.

RESEARCH USE

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