

MYT1 (B-10): sc-398299

BACKGROUND

C2HC-type zinc finger transcription factors, such as MYT1L, MYT1 and ST18, are widely expressed in developing neuronal cells. MYT1 (myelin transcription factor 1), also designated MTF1, MYT1 or PLPB1, is a 1,121 amino acid nuclear protein expressed in neural progenitors and oligodendrocyte lineage cells. MYT1 consists of seven very highly conserved zinc fingers of the C2HC class of zinc finger transcription factors, which are arranged in two widely separated clusters. These two clusters of the DNA binding domain can function independently and recognize the same DNA sequence. MYT1 is thought to be involved in the development of neurons and oligodendroglia in the central nervous system and in the regulation of endocrine differentiation and function. Myelin repair in periventricular leukomalacia (PVL) regions in developing brain may involve MYT1 activity.

REFERENCES

1. Armstrong, R.C., et al. 1997. High-grade human brain tumors exhibit increased expression of myelin transcription factor 1 (MYT1), a zinc finger DNA-binding protein. *J. Neuropathol. Exp. Neurol.* 56: 772-781.
2. Kim, J.G., et al. 1997. Myelin transcription factor 1 (MYT1) of the oligodendrocyte lineage, along with a closely related CCHC zinc finger, is expressed in developing neurons in the mammalian central nervous system. *J. Neurosci. Res.* 50: 272-290.
3. Yee, K.S., et al. 1998. Isolation and characterization of a novel member of the neural zinc finger factor/myelin transcription factor family with transcriptional repression activity. *J. Biol. Chem.* 273: 5366-5374.
4. Hirayama, A., et al. 2003. Myelin transcription factor 1 (MYT1) immunoreactivity in infants with periventricular leukomalacia. *Brain Res. Dev. Brain Res.* 140: 85-92.

CHROMOSOMAL LOCATION

Genetic locus: MYT1 (human) mapping to 20q13.33; Myt1 (mouse) mapping to 2 H4.

SOURCE

MYT1 (B-10) is a mouse monoclonal antibody raised against amino acids 538-684 mapping within an internal region of MYT1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MYT1 (B-10) is available conjugated to agarose (sc-398299 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398299 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398299 PE), fluorescein (sc-398299 FITC), Alexa Fluor® 488 (sc-398299 AF488), Alexa Fluor® 546 (sc-398299 AF546), Alexa Fluor® 594 (sc-398299 AF594) or Alexa Fluor® 647 (sc-398299 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398299 AF680) or Alexa Fluor® 790 (sc-398299 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

MYT1 (B-10) is recommended for detection of MYT1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MYT1 siRNA (h): sc-75858, MYT1 siRNA (m): sc-149769, MYT1 shRNA Plasmid (h): sc-75858-SH, MYT1 shRNA Plasmid (m): sc-149769-SH, MYT1 shRNA (h) Lentiviral Particles: sc-75858-V and MYT1 shRNA (m) Lentiviral Particles: sc-149769-V.

Molecular Weight of MYT1: 122 kDa.

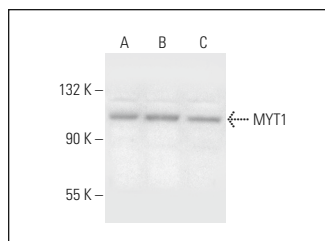
Positive Controls: Daoy whole cell lysate: sc-364381, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SUPPORT REAGENTS

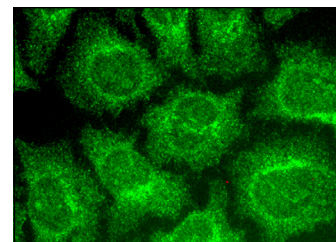
To ensure optimal results, the following support reagents are recommended:

- 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.

DATA



MYT1 (B-10): sc-398299. Western blot analysis of MYT1 expression in Jurkat (A), Daoy (B) and HL-60 (C) whole cell lysates.



MYT1 (B-10): sc-398299. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

STORAGE

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

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.