

Manic Fringe (M-56): sc-292668

BACKGROUND

Three mammalian fringe family members, Manic, Radical and Lunatic Fringe, have been identified as proteins related to *Drosophila* fringe, a protein involved in development. Fringe proteins act upstream of the Notch signaling pathway and are involved in boundary determination during segmentation. Each mammalian fringe displays different patterns of expression, though all are expressed in the mouse embryo as well as in many adult tissues. Radical fringe plays a key role in the development of the limb bud. Lunatic fringe is required for normal somite segmentation and patterning and is thought to be a target of the molecular clock. Manic fringe, also involved in somatic development, has been shown to render mouse NIH/3T3 cells tumorigenic in SCID mice.

REFERENCES

1. May, W.A., et al. 1997. EWS/FLI1-induced manic fringe renders NIH/3T3 cells tumorigenic. *Nat. Genet.* 17: 495-497.
2. Laufer, E., et al. 1997. Expression of Radical fringe in limb-bud ectoderm regulates apical ectodermal ridge formation. *Nature* 386: 366-373.
3. Johnston, S.H., et al. 1997. A family of mammalian Fringe genes implicated in boundary determination and the Notch pathway. *Development* 124: 2245-2254.
4. May, W.A., et al. 1997. EWS/FLI1-induced manic fringe renders NIH 3T3 cells tumorigenic. *Nat. Genet.* 17: 495-497.
5. Cohen, B., et al. 1997. Fringe boundaries coincide with Notch-dependent patterning centres in mammals and alter Notch-dependent development in *Drosophila*. *Nat. Genet.* 16: 283-288.
6. Thelu, J., et al. 1998. Differential expression pattern of the three fringe genes is associated with epidermal differentiation. *J. Invest. Dermatol.* 111: 903-906.
7. Evrard, Y.A., et al. 1998. Lunatic fringe is an essential mediator of somite segmentation and patterning. *Nature* 394: 377-381.
8. McGrew, M.J., et al. 1998. The lunatic fringe gene is a target of the molecular clock linked to somite segmentation in avian embryos. *Curr. Biol.* 8: 979-982.

CHROMOSOMAL LOCATION

Genetic locus: Mfng (mouse) mapping to 15 E1.

SOURCE

Manic Fringe (M-56) is a rabbit polyclonal antibody raised against amino acids 1-56 mapping at the N-terminus of Manic Fringe of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Manic Fringe (M-56) is recommended for detection of Manic Fringe of mouse and rat 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)], 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).

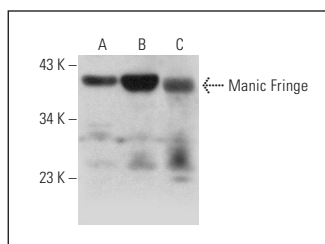
Suitable for use as control antibody for Manic Fringe siRNA (m): sc-39493, Manic Fringe shRNA Plasmid (m): sc-39493-SH and Manic Fringe shRNA (m) Lentiviral Particles: sc-39493-V.

Positive Controls: mouse kidney extract: sc-2255, mouse skin extract: sc-364251 or WEHI-231 whole cell lysate: sc-2213.

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.

DATA



Manic Fringe (M-56): sc-292668. Western blot analysis of Manic Fringe expression in WEHI-231 whole cell lysate (A) and mouse skin (B) and mouse kidney (C) tissue extracts.

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.