SANTA CRUZ BIOTECHNOLOGY, INC.

Manic Fringe (2B11): sc-517162

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. 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.
5. Thelu, J., et al. 1998. Differential expression pattern of the three fringe genes is associated with epidermal differentiation. J. Invest. Dermatol. 111: 903-906.
6. Evrard, Y.A., et al. 1998. Lunatic fringe is an essential mediator of somite segmentation and patterning. Nature 394: 377-381.
7. 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 (human) mapping to 22q13.1.

SOURCE

Manic Fringe (2B11) is a mouse monoclonal antibody raised against amino acids 214-291 representing partial length Manic Fringe of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of 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

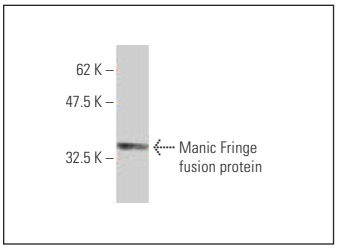
Manic Fringe (2B11) is recommended for detection of Manic Fringe of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Manic Fringe siRNA (h): sc-39492, Manic Fringe shRNA Plasmid (h): sc-39492-SH and Manic Fringe shRNA (h) Lentiviral Particles: sc-39492-V.

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



Manic Fringe (2B11): sc-517162. Western blot analysis of human recombinant Manic Fringe 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.