SANTA CRUZ BIOTECHNOLOGY, INC.

Zic2 (3C12): sc-517055

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Zic2 (zinc finger protein of the cerebellum 2) is a C_2H_2 zinc finger transcription factor that influences forebrain development. Zic2 is a transcriptional repressor and may regulate tissue specific expression of dopamine receptor D1. Zic2 transcript is abundant in the dorsal neural tube/spinal cord, and in the hindbrain. A polyhistidine tract polymorphism in this gene may be associated with increased risk of neural tube defects. This gene is closely linked to a gene encoding zinc finger protein of the cerebellum 5, a related family member on chromosome 13.

REFERENCES

1. Nagai, T., et al. 1997. The expression of the mouse Zic1, Zic2, and Zic3 gene suggests an essential role for Zic genes in body pattern formation. Dev. Biol. 182: 299-313.
2. Aruga, J., et al. 1998. Mouse Zic1 is involved in cerebellar development. J. Neurosci. 18: 284-293.
3. Ogura, H., et al. 2001. Behavioral abnormalities of Zic1 and Zic2 mutant mice: implications as models for human neurological disorders. Behav. Genet. 31: 317-324.
4. Salero, E., et al. 2001. Transcription factors Zic1 and Zic2 bind and transactivate the apolipoprotein E gene promoter. J. Biol. Chem. 276: 1881-1888.
5. Aruga, J., et al. 2002. Zic1 promotes the expansion of dorsal neural progenitors in spinal cord by inhibiting neuronal differentiation. Dev. Biol. 244: 329-341.
6. Ebert, P.J., et al. 2003. Zic1 represses Math1 expression via interactions with the Math1 enhancer and modulation of Math1 autoregulation. Development 130: 1949-1959.
7. Grinberg, I., et al. 2004. Heterozygous deletion of the linked genes Zic1 and Zic4 is involved in Dandy-Walker malformation. Nat. Genet. 36: 1053-1055.
8. LocusLink Report (LocusID: 7545). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: ZIC2 (human) mapping to 13q32.3; Zic2 (mouse) mapping to 14 E5.

SOURCE

Zic2 (3C12) is a mouse monoclonal antibody raised against amino acids 151-216 representing partial length Zic2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} 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

Zic2 (3C12) is recommended for detection of Zic2 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).

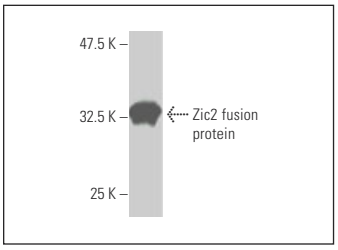
Suitable for use as control antibody for Zic2 siRNA (h): sc-45881, Zic2 siRNA (m): sc-45882, Zic2 shRNA Plasmid (h): sc-45881-SH, Zic2 shRNA Plasmid (m): sc-45882-SH, Zic2 shRNA (h) Lentiviral Particles: sc-45881-V and Zic2 shRNA (m) Lentiviral Particles: sc-45882-V.

Molecular Weight of Zic2: 70 kDa.

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



Zic2 (3C12): sc-517055. Western blot analysis of human recombinant Zic2 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.