

## Zic2 (N-13): sc-28151

### BACKGROUND

Zic2 (zinc finger protein of the cerebellum 2) is a C<sub>2</sub>H<sub>2</sub> 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 hind-brain. 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

- 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.
- Aruga, J., et al. 1998. Mouse Zic1 is involved in cerebellar development. *J. Neurosci.* 18: 284-93.
- 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.
- Salero, E., et al. 2001. Transcription factors Zic1 and Zic2 bind and transactivate the apolipoprotein E gene promoter. *J. Biol. Chem.* 276: 1881-1888.
- 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.
- 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.
- 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
- 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 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Zic2 of human origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-28151 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28151 X, 200 µg/0.1 ml.

### APPLICATIONS

Zic2 (N-13) 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), 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 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.

Zic2 (N-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Zic2: 70 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### SELECT PRODUCT CITATIONS

- Ma, Z., et al. 2008. Binding of upstream stimulatory factor 1 to the E-box regulates the 4G/5G polymorphism-dependent plasminogen activator inhibitor 1 expression in mast cells. *J. Allergy Clin. Immunol.* 121: 1006-1012.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Zic2 (3C12): sc-517055**, our highly recommended monoclonal alternative to Zic2 (N-13).