

Zic4 (RY-6): sc-101202

BACKGROUND

Zic4 (zinc finger protein of the cerebellum 4) is a C₂H₂ zinc finger transcription factor that influences cerebellar development. Zic4 localizes to the nuclei of cerebellar granule cells. Zic4 mRNA expression peaks on postnatal day 5 in the developing cerebellum of mouse. Zic family members are important during development, and have been associated with X-linked visceral heterotaxy and holoprosencephaly type 5. Zic4 is closely linked to Zic1, a related family member on chromosome 3.

REFERENCES

1. Aruga, J., et al. 1996. Identification and characterization of Zic4, a new member of the mouse Zic gene family. *Gene* 172: 291-294.
2. 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.
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 trans-activate the apolipoprotein E gene promoter. *J. Biol. Chem.* 276: 1881-1888.
5. 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.
6. 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.
7. LocusLink Report (LocusID: 84107). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: ZIC4 (human) mapping to 3q24.

SOURCE

Zic4 (RY-6) is a mouse monoclonal antibody raised against recombinant Zic4 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Zic4 (RY-6) is recommended for detection of Zic4 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 Zic4 siRNA (h): sc-106712, Zic4 shRNA Plasmid (h): sc-106712-SH and Zic4 shRNA (h) Lentiviral Particles: sc-106712-V.

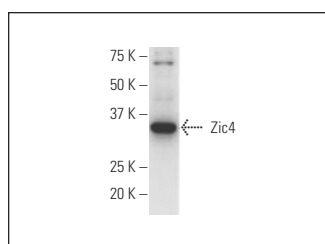
Molecular Weight of Zic4: 34 kDa.

Positive Controls: SK-N-MC nuclear extract: sc-2154, HeLa nuclear extract: sc-2120 or THP-1 nuclear extract: sc-24963

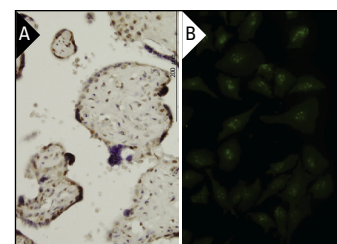
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Zic4 (RY-6): sc-101202. Western blot analysis of Zic4 expression in HeLa nuclear extract.



Zic4 (RY-6): sc-101202. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human placenta tissue showing nuclear localization (A). Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization (B).

SELECT PRODUCT CITATIONS

1. Qi, Y.Y., et al. 2018. A rare variant (rs933717) at FBX031-MAP1LC3B in Chinese is associated with systemic lupus erythematosus. *Arthritis Rheumatol.* 70: 287-297.

RESEARCH USE

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