

Zic3 (C-12): sc-28156

BACKGROUND

Zic3 (zinc finger protein of the cerebellum 3) is a C₂H₂ zinc finger transcription factor that establishes a proper left-right axis and midline neural patterning during early development of the vertebrate embryo. Mutations in this gene cause X-linked visceral heterotaxy, which includes congenital heart disease and left-right axis defects in organs. Zic3 mutations in the zinc finger DNA binding domain and in the N-terminal domain result in loss of reporter gene transactivation, and mutations between amino acids 253-323 of the Zic3 protein causes aberrant cytoplasmic localization rather than the wild type nuclear localization.

CHROMOSOMAL LOCATION

Genetic locus: ZIC3 (human) mapping to Xq26.3; Zic3 (mouse) mapping to X A6.

SOURCE

Zic3 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Zic3 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-28156 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-28156 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

Zic3 (C-12) is recommended for detection of Zic3 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)], 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).

Zic3 (C-12) is also recommended for detection of Zic3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Zic3 siRNA (h): sc-106711, Zic3 siRNA (m): sc-155610, Zic3 shRNA Plasmid (h): sc-106711-SH, Zic3 shRNA Plasmid (m): sc-155610-SH, Zic3 shRNA (h) Lentiviral Particles: sc-106711-V and Zic3 shRNA (m) Lentiviral Particles: sc-155610-V.

Molecular Weight of Zic3: 56 kDa.

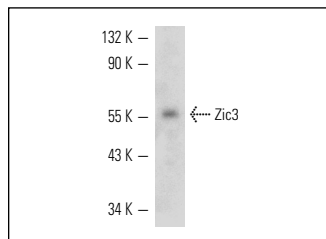
Positive Controls: NIH/3T3 whole cell lysate: sc-2210, RAT2 whole cell lysate: sc-364198 or Y79 nuclear extract: sc-2126.

Zic3 (C-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Zic3 (C-12): sc-28156. Western blot analysis of Zic3 expression in Y79 nuclear extract

SELECT PRODUCT CITATIONS

- Lim, L.S., et al. 2007. Zic3 is required for maintenance of pluripotency in embryonic stem cells. *Mol. Biol. Cell* 18: 1348-1358.
- Bedard, J.E., et al. 2007. Nuclear import and export signals are essential for proper cellular trafficking and function of ZIC3. *Hum. Mol. Genet.* 16: 187-198.
- Doi, T., et al. 2011. Disruption of GLI3-ZIC3 interaction in the cadmium-induced omphalocele chick model. *Pediatr. Surg. Int.* 27: 205-209.
- Bedard, J.E., et al. 2011. Identification of a novel ZIC3 isoform and mutation screening in patients with heterotaxy and congenital heart disease. *PLoS ONE* 6: e23755.
- Doi, T., et al. 2011. Altered PITX2 and LEF1 gene expression in the cadmium-induced omphalocele in the chick model. *Pediatr. Surg. Int.* 27: 495-499.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.


 MONOS
Satisfaction
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Try **Zic3 (SQ-15): sc-101201**, our highly recommended monoclonal alternative to Zic3 (C-12).