SANTA CRUZ BIOTECHNOLOGY, INC.

Evx-2 (F-20): sc-22189

BACKGROUND

Homeodomain proteins are transcription factors that share a related DNA binding domain, the homeodomain. They control gene expression in order to regulate development in all eukaryotes. Hox genes are required for the establishment of regional identities along body axes. The vertebrate Hox genes map closely to Evx-1 and Evx-2, the homologues of the *Drosophila melanogaster* even skipped gene. Evx-1 maps to mouse chromosome 6, near the Hox-1 gene cluster, and Evx-2 maps to mouse chromosome 2, near the Hox-4 cluster. The close linkage of the Evx and Hox genes is distinct because Evx expression is partly controlled by mechanisms acting on the Hox genes. Evx-1 and Evx-2 belong to a homeodomain protein family that also controls body plan formation, and play a crucial role in gastrulation, neurogenesis, appendage development, and tailbud formation.

REFERENCES

1. Dush, M.K. and Martin, G.R. 1992. Analysis of mouse Evx genes: Evx-1 displays graded expression in the primitive streak. Dev. Biol. 151: 273-287.
2. Herault, Y., Hraba-Renevey, S., van der Hoeven, F. and Duboule, D. 1996. Function of the Evx-2 gene in the morphogenesis of vertebrate limbs. EMBO J. 15: 6727-6738.
3. Sordino, P., Duboule, D. and Kondo, T. 1996. Zebrafish Hoxa and Evx-2 genes: cloning, developmental expression and implications for the functional evolution of posterior Hox genes. Mech. Dev. 59: 165-175.
4. Mannervik, M. 1999. Target genes of homeodomain proteins. BioEssays 21: 267-270.
5. Ferrier, D.E., Minguillon, C., Cebrian, C. and Garcia-Fernandez, J. 2001. Amphioxus Evx genes: implications for the evolution of the Midbrain-Hindbrain Boundary and the chordate tailbud. Dev. Biol. 237: 270-281.

CHROMOSOMAL LOCATION

Genetic locus: EVX2 (human) mapping to 2q31.1; Evx2 (mouse) mapping to 2 C3.

SOURCE

Evx-2 (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Evx-2 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-22189 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Evx-2 (F-20) is recommended for detection of even-skipped homolog protein 2 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).

Evx-2 (F-20) is also recommended for detection of even-skipped homolog protein 2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Evx-2 siRNA (h): sc-38661, Evx-2 siRNA (m): sc-38662, Evx-2 shRNA Plasmid (h): sc-38661-SH, Evx-2 shRNA Plasmid (m): sc-38662-SH, Evx-2 shRNA (h) Lentiviral Particles: sc-38661-V and Evx-2 shRNA (m) Lentiviral Particles: sc-38662-V.

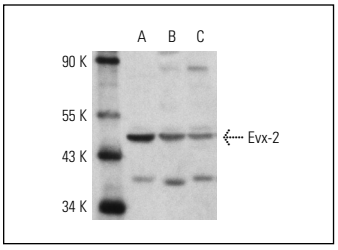
Molecular Weight of Evx-2: 48 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, F9 cell lysate: sc-2245 or C3H10T1/2 cell lysate: sc-3801.

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



Evx-2 (F-20): sc-22189. Western blot analysis of Evx-2 expression in NIH/3T3 (**A**), F9 (**B**) and C3H/10T1/2 (**C**) whole cell lysates.

PROTOCOLS

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