SANTA CRUZ BIOTECHNOLOGY, INC.

LHX9 (S-23): sc-133738

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

During development, genetically distinct subtypes of motor neurons express unique combinations of LIM-type homeodomain factors, which regulate cell migration and guide motor axons to establish the fidelity of a binary choice in axonal trajectory. The LIM gene family encodes a set of gene products, which carry the LIM domain, a unique cysteine-rich zinc-binding domain. At least 40 members of this family have been identified in vertebrates and invertebrates, and are distributed into 4 groups according to the number of LIM domains and to the presence of homeodomains and kinase domains. The human LHX9 gene maps to chromosome 1q31.3 and encodes a 388 amino acid protein. LHX9 is closely related to LHX2 and is expressed in the developing central nervous system. LHX9 influences the control of cell differentiation of several neural cell types and may act in a combinatorial manner with other LIM-homeodomain factors expressed in overlapping patterns.

REFERENCES

1. Bertuzzi, S., et al. 1999. Characterization of Lhx9, a novel LIM/homeobox gene expressed by the pioneer neurons in the mouse cerebral cortex. Mech. Dev. 81: 193-198.
2. Lilly, B., et al. 1999. The LIM homeodomain protein dLim1 defines a subclass of neurons within the embryonic ventral nerve cord of *Drosophila*. Mech. Dev. 88: 195-205.
3. Retaux, S., et al. 1999. LHX9: a novel LIM-homeodomain gene expressed in the developing forebrain. J. Neurosci. 19: 783-793.
4. Sharma, K., et al. 2000. Genetic and epigenetic mechanisms contribute to motor neuron pathfinding. Nature 406: 515-519.
5. Cheah, S.S., et al. 2000. Requirement of LIM domains for LIM1 function in mouse head development. Genesis 27: 12-21.
6. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605992. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. LocusLink Report (LocusID: 3975). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: LHX9 (human) mapping to 1q31.3; Lhx9 (mouse) mapping to 1 F.

SOURCE

LHX9 (S-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic LHX9 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

LHX9 (S-23) is recommended for detection of LHX9 of mouse, rat, human, zebrafish and canine 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 LHX9 siRNA (h): sc-38719, LHX9 siRNA (m): sc-38720, LHX9 shRNA Plasmid (h): sc-38719-SH, LHX9 shRNA Plasmid (m): sc-38720-SH, LHX9 shRNA (h) Lentiviral Particles: sc-38719-V and LHX9 shRNA (m) Lentiviral Particles: sc-38720-V.

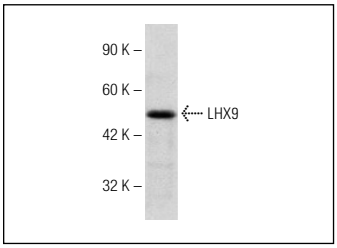
Molecular Weight of LHX9: 44 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



LHX9 (S-23): sc-133738. Western blot analysis of LHX9 expression in Jurkat whole cell lysate.

RESEARCH USE

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