SANTA CRUZ BIOTECHNOLOGY, INC.

LHX6 (H-75): sc-98607

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 proteins which carry the LIM domain, a unique cysteine-rich zinc-binding motif. LHX6 (LIM homeobox 6), also known as LHX6.1, is a 363 amino acid nuclear protein that contains 2 LIM zinc-binding domains and one homeobox DNA-binding domain. Expressed specifically in brain, LHX6 is thought to function as a transcriptional regulator that may play a role in the development and differentiation of lymphoid and neural cells. Additionally, LHX6 is hypermethylated in head and neck carcinomas and may be a novel tumor marker. Two isoforms of LHX6, designated LHX6.1A and LHX6.1B, exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: LHX6 (human) mapping to 9q33.2; Lhx6 (mouse) mapping to 2 B.

SOURCE

LHX6 (H-75) is a rabbit polyclonal antibody raised against amino acids 1-75 mapping at the N-terminus of LHX6 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.

Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98607 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

LHX6 (H-75) is recommended for detection of LHX6 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).

LHX6 (H-75) is also recommended for detection of LHX6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LHX6 siRNA (h): sc-75425, LHX6 siRNA (m): sc-75426, LHX6 shRNA Plasmid (h): sc-75425-SH, LHX6 shRNA Plasmid (m): sc-75426-SH, LHX6 shRNA (h) Lentiviral Particles: sc-75425-V and LHX6 shRNA (m) Lentiviral Particles: sc-75426-V.

LHX6 (H-75) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

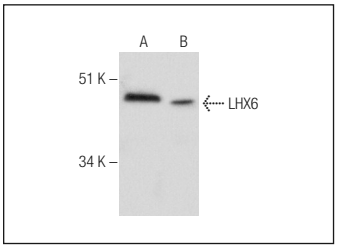
Molecular Weight of LHX6: 40 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, NIH/3T3 whole cell lysate: sc-2210 or HeLa nuclear extract: sc-2120.

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.

DATA



LHX6 (H-75): sc-98607. Western blot analysis of LHX6 expression in NIH/3T3 (**A**) and RAW 264.7 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Steinecke, A., et al. 2012. Disrupted-in-Schizophrenia 1 (DISC1) is necessary for the correct migration of cortical interneurons. J. Neurosci. 32: 738-745.
2. Bader, A., et al. 2012. Untypical connectivity from olfactory sensory neurons expressing OR37 into higher brain centers visualized by genetic tracing. Histochem. Cell Biol. 137: 615-628.

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 or our catalog for detailed protocols and support products.