SANTA CRUZ BIOTECHNOLOGY, INC.

LIMCH1 (S-12): sc-138390

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The LIM domain consists of a cysteine-rich zinc-binding motif that is present in a variety of transcription factors, including the LIM homeobox (LHX) proteins of the central nervous system that contribute to cell differentiation. LIMCH1 (LIM and calponin homology domains 1), also known as LMO7B and LIMCH1A, is a 1,083 amino acid protein that belongs to the LIMCH1 family. Containing one CH (calponin-homology) domain and one LIM zinc-binding domain, LIMCH1 exists as nine alternatively spliced isoforms. LIMCH1 is encoded by a gene located on human chromosome 4p13. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is on chromosome 4. FGFR-3 is also encoded on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

1. Howard, T.D., et al. 1997. Autosomal dominant postaxial polydactyly, nail dystrophy, and dental abnormalities map to chromosome 4p16, in the region containing the Ellis-van Creveld syndrome locus. Am. J. Hum. Genet. 61: 1405-1412.
2. Singhrao, S.K., et al. 1998. Huntingtin protein colocalizes with lesions of neurodegenerative diseases: an investigation in Huntington's, Alzheimer's, and Pick's diseases. Exp. Neurol. 150: 213-222.
3. Krakow, D., et al. 2000. Exclusion of the Ellis-van Creveld region on chromosome 4p16 in some families with asphyxiating thoracic dystrophy and short-rib polydactyly syndromes. Eur. J. Hum. Genet. 8: 645-648.
4. Sommardahl, C., et al. 2001. Phenotypic variations of orpk mutation and chromosomal localization of modifiers influencing kidney phenotype. Physiol. Genomics 7: 127-134.

CHROMOSOMAL LOCATION

Genetic locus: LIMCH1 (human) mapping to 4p13; Limch1 (mouse) mapping to 5 C3.1.

SOURCE

LIMCH1 (S-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of LIMCH1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-138390 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.

APPLICATIONS

LIMCH1 (S-12) is recommended for detection of LIMCH1 isoforms 1-9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LIMCH1 (S-12) is also recommended for detection of LIMCH1 isoforms 1-9 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for LIMCH1 siRNA (h): sc-89207, LIMCH1 siRNA (m): sc-146726, LIMCH1 shRNA Plasmid (h): sc-89207-SH, LIMCH1 shRNA Plasmid (m): sc-146726-SH, LIMCH1 shRNA (h) Lentiviral Particles: sc-89207-V and LIMCH1 shRNA (m) Lentiviral Particles: sc-146726-V.

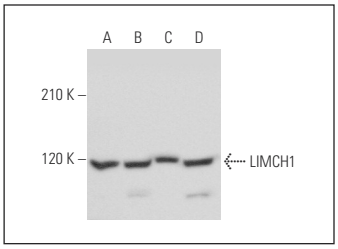
Molecular Weight of LIMCH1: 122 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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



LIMCH1 (S-12): sc-138390. Western blot analysis of LIMCH1 expression in HEK293 (**A**), THP-1 (**B**), Jurkat (**C**) and K-562 (**D**) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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