

CHL1 (H-88): sc-98790

BACKGROUND

Neural cell adhesion molecules play an important role in neural cell interactions and neuronal development and growth. Close Homolog of L1 (CHL1), also designated cell adhesion molecule with homology to L1CAM or L1 cell adhesion molecule 2, belongs to the L1 gene family of neural cell adhesion molecules. CHL1 plays a role in signal transduction pathways and is involved in cell migration, axon growth and guidance. It is required for neuronal positioning and dendritic growth of pyramidal neurons in the posterior region of the developing mouse neocortex. CHL1 is expressed in pyramidal neurons in a high-caudal to low-rostral gradient within the developing cortex.

REFERENCES

1. Angeloni, D., et al. 1999. CALL gene is haploinsufficient in a 3p- syndrome patient. *Am. J. Med. Genet.* 86: 482-485.
2. Sakurai, K., et al. 2002. An association between a missense polymorphism in the close homologue of L1 (CHL1, CALL) gene and schizophrenia. *Mol. Psychiatry* 7: 412-415.
3. Irintchev, A., et al. 2004. Impairment of sensorimotor gating in mice deficient in the cell adhesion molecule L1 or its close homologue, CHL1. *Brain Res.* 1029: 131-134.
4. Demyanenko, G.P., et al. 2004. Close homolog of L1 modulates area-specific neuronal positioning and dendrite orientation in the cerebral cortex. *Neuron* 44: 423-437.
5. Munos, S., et al. 2004. Transcript profiling in the CHL1-5 mutant of *Arabidopsis* reveals a role of the nitrate transporter NRT1.1 in the regulation of another nitrate transporter, NRT2.1. *Plant Cell* 16: 2433-2447.
6. Petronczki, M., et al. 2004. Sister-chromatid cohesion mediated by the alternative RF-CCTf18/Dcc1/Ctf8, the helicase CHL1 and the polymerase- α -associated protein Ctf4 is essential for chromatid disjunction during meiosis II. *J. Cell Sci.* 117: 3547-3559.
7. Rokman, A., et al. 2005. Hereditary prostate cancer in Finland: fine-mapping validates 3p26 as a major predisposition locus. *Hum. Genet.* 116: 43-50.
8. Gast, D., et al. 2005. L1 augments cell migration and tumor growth but not β 3 integrin expression in ovarian carcinomas. *Int. J. Cancer* 115: 658-665.

CHROMOSOMAL LOCATION

Genetic locus: CHL1 (human) mapping to 3p26.3; Chl1 (mouse) mapping to 6 E1.

SOURCE

CHL1 (H-88) is a rabbit polyclonal antibody raised against amino acids 509-596 mapping within an internal region of CHL1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CHL1 (H-88) is recommended for detection of CHL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

CHL1 (H-88) is also recommended for detection of CHL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CHL1 siRNA (h): sc-45787, CHL1 siRNA (m): sc-45788, CHL1 shRNA Plasmid (h): sc-45787-SH, CHL1 shRNA Plasmid (m): sc-45788-SH, CHL1 shRNA (h) Lentiviral Particles: sc-45787-V and CHL1 shRNA (m) Lentiviral Particles: sc-45788-V.

Molecular Weight of CHL1: 135 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, SK-N-SH cell lysate: sc-2410 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.

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.

PROTOCOLS

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



Try **CHL1 (2H5): sc-293293**, our highly recommended monoclonal alternative to CHL1 (H-88).