

CHL1 (2H5): sc-293293

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

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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.
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CHROMOSOMAL LOCATION

Genetic locus: CHL1 (human) mapping to 3p26.3.

SOURCE

CHL1 (2H5) is a mouse monoclonal antibody raised against amino acids 26-135 of CHL1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

CHL1 (2H5) is recommended for detection of CHL1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

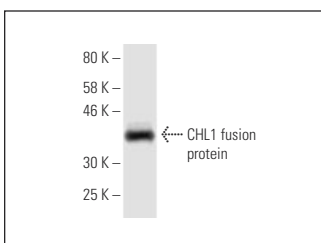
Suitable for use as control antibody for CHL1 siRNA (h): sc-45787, CHL1 shRNA Plasmid (h): sc-45787-SH and CHL1 shRNA (h) Lentiviral Particles: sc-45787-V.

Molecular Weight of CHL1: 135 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CHL1 (2H5): sc-293293. Western blot analysis of human recombinant CHL1 fusion protein.

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 for detailed protocols and support products.