

Reelin (H-2): sc-55524

BACKGROUND

Reelin (or Reln) is a large glycoprotein that is secreted by Cajal-Retzius cells in the forebrain and by granule neurons in the cerebellum. Reelin was shown to be mutated in "reeler" mice, a mutation that is associated with widespread disruption of laminated regions of the brain, leading to impaired motor coordination, tremors and ataxia. Reelin protein expression is complex and changes throughout development. Reelin appears to function upstream of Dab1, in a signaling pathway that controls cell positioning in the developing brain, and is also thought to be a direct effector of the neurotrophin BDNF.

REFERENCES

1. D'Arcangelo, G., Miao, G.G., Chen, S.C., Soares, H.D., Morgan, J.I. and Curran, T. 1995. A protein related to extracellular matrix proteins deleted in the mouse mutant reeler. *Nature* 374: 719-723.
2. Curran, T. and D'Arcangelo, G. 1998. Role of Reelin in the control of brain development. *Brain Res. Brain Res. Rev.* 26: 285-294.
3. Alcántara, S., Ruiz, M., D'Arcangelo, G., Ezan, F., de Lecea, L., Curran, T., Sotelo, C. and Soriano, E. 1998. Regional and cellular patterns of Reelin mRNA expression in the forebrain of the developing and adult mouse. *J. Neurosci.* 18: 7779-7799.
4. Pesold, C., Impagnatiello, F., Pisu, M.G., Uzunov, D.P., Costa, E., Guidotti, A. and Caruncho, H.J. 1998. Reelin is preferentially expressed in neurons synthesizing γ -aminobutyric acid in cortex and hippocampus of adult rats. *Proc. Natl. Acad. Sci. USA* 95: 3221-3226.
5. Rice, D.S., Sheldon, M., D'Arcangelo, G., Nakajima, K., Goldowitz, D. and Curran, T. 1998. Disabled-1 acts downstream of Reelin in a signaling pathway that controls laminar organization in the mammalian brain. *Development* 125: 3719-3729.
6. Ringstedt, T., Linnarsson, S., Wagner, J., Lendahl, U., Kokaia, Z., Arenas, E., Emfors, P. and Ibanez, C.F. 1998. BDNF regulates Reelin expression and Cajal-Retzius cell development in the cerebral cortex. *Neuron* 21: 305-315.
7. LocusLink Report (LocusID: 5649). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: RELN (human) mapping to 7q22.1.

SOURCE

Reelin (H-2) is a mouse monoclonal antibody raised against amino acids 3239-3460 of Reelin of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Reelin (H-2) is recommended for detection of Reelin of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and 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).

Suitable for use as control antibody for Reelin siRNA (h): sc-42208, Reelin shRNA Plasmid (h): sc-42208-SH and Reelin shRNA (h) Lentiviral Particles: sc-42208-V.

Molecular Weight of full length Reelin: 420 kDa.

Molecular Weight of Reelin cleavage products: 310/180 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.