SANTA CRUZ BIOTECHNOLOGY, INC.

Reelin (E-5): sc-25346

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: RELN (human) mapping to 7q22.1; Reln (mouse) mapping to 5 A3.

SOURCE

Reelin (E-5) is a mouse monoclonal antibody raised against amino acids 3239-3460 of Reelin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Reelin (E-5) is available conjugated to agarose (sc-25346 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25346 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25346 PE), fluorescein (sc-25346 FITC), Alexa Fluor® 488 (sc-25346 AF488), Alexa Fluor® 546 (sc-25346 AF546), Alexa Fluor® 594 (sc-25346 AF594) or Alexa Fluor® 647 (sc-25346 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25346 AF680) or Alexa Fluor® 790 (sc-25346 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Reelin (E-5) is recommended for detection of Reelin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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), immunohistochemistry (including paraffin-embedded sections) (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 siRNA (m): sc-42209, Reelin shRNA Plasmid (h): sc-42208-SH, Reelin shRNA Plasmid (m): sc-42209-SH, Reelin shRNA (h) Lentiviral Particles: sc-42208-V and Reelin shRNA (m) Lentiviral Particles: sc-42209-V.

Molecular Weight of full length Reelin: 420 kDa.

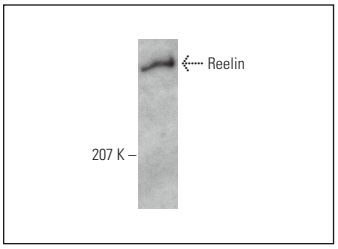
Molecular Weight of Reelin cleavage products: 310/180 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

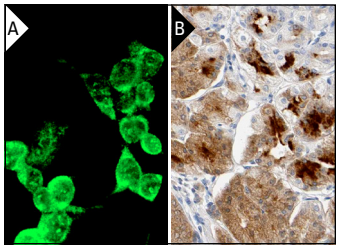
STORAGE

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

DATA



Reelin (E-5): sc-25346. Western blot analysis of Reelin expression in HeLa whole cell lysate.



Reelin (E-5): sc-25346. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Arnaud, L., et al. 2003. Regulation of protein tyrosine kinase signaling by substrate degradation during brain development. Mol. Cell. Biol. 23: 9293-9302.
2. Sui, L., et al. 2012. Epigenetic regulation of Reelin and brain-derived neurotrophic factor genes in long-term potentiation in rat medial prefrontal cortex. Neurobiol. Learn. Mem. 97: 425-440.
3. Kong, X., et al. 2014. Neuroprotective effect of buyang huanwu decoction on rat ischemic/reperfusion brain damage by promoting migration of neural precursor cells. Rejuvenation Res. 17: 264-275.
4. Kohno, T., et al. 2015. Importance of Reelin C-terminal region in the development and maintenance of the postnatal cerebral cortex and its regulation by specific proteolysis. J. Neurosci. 35: 4776-4787.
5. Sato, Y., et al. 2016. Determination of cleavage site of Reelin between its sixth and seventh repeat and contribution of meprin metalloproteases to the cleavage. J. Biochem. 159: 305-312.
6. Diamandis, P., et al. 2017. The pathology of incipient polymicrogyria. Brain Dev. 39: 23-39.
7. Sánchez-Sánchez, S.M., et al. 2018. Rare RELN variants affect Reelin-DAB1 signal transduction in autism spectrum disorder. Hum. Mutat. 39: 1372-1383.
8. Racetin, A., et al. 2019. Expression and localization of DAB1 and Reelin during normal human kidney development. Croat. Med. J. 60: 521-531.
9. Arioka, Y., et al. 2020. Characterization of a schizophrenia patient with a rare RELN deletion by combining genomic and patient-derived cell analyses. Schizophr. Res. 216: 511-515.

RESEARCH USE

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