

PDLIM5 (Q-18): sc-82014

BACKGROUND

PDLIM5 (PDZ and LIM domain 5), also known as L9, ENH (Enigma homolog), LIM or ENH1, is a member of the Enigma family of proteins. Proteins belonging to this family contain an N-terminal PDZ (post-synaptic density-95/discs large/zone occludens-1) domain and one to three C-terminal LIM domains that typically associate with various isoforms of PKC (protein kinase C). Expressed in a wide variety of tissues, PDLIM5 contains three LIM zinc-binding domains and one PDZ domain. In the brain, PDLIM5 colocalizes with synaptic vesicles of neurotransmitters and regulates neuronal calcium signaling through an interaction with PKC ϵ and N-type Ca^{++} CP $\alpha 1\text{B}$ (N-type calcium channel $\alpha 1\text{B}$ subunit). Expression of PDLIM5 is often increased in the brain of patients with schizophrenia, major depression and bipolar disorder. This suggests that PDLIM5 may contribute to the genetic susceptibility of such conditions.

REFERENCES

1. Kuroda, S., et al. 1996. Protein-protein interaction of zinc finger LIM domains with protein kinase C. *J. Biol. Chem.* 271: 31029-31032.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605904. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Wu, M., et al. 2004. Cloning and identification of a novel human gene PDLIM5, a homolog of AD-associated neuronal thread protein (AD7c-NTP). *DNA Seq.* 15: 144-147.
4. Kato, T., et al. 2005. Gene expression and association analyses of LIM (PDLIM5) in bipolar disorder and schizophrenia. *Mol. Psychiatry* 10: 1045-1055.
5. Iga, J., et al. 2006. Gene expression and association analysis of LIM (PDLIM5) in major depression. *Neurosci. Lett.* 400: 203-207.
6. Horiuchi, Y., et al. 2006. A polymorphism in the PDLIM5 gene associated with gene expression and schizophrenia. *Biol. Psychiatry* 59: 434-439.
7. Numata, S., et al. 2007. Gene expression in the peripheral leukocytes and association analysis of PDLIM5 gene in schizophrenia. *Neurosci. Lett.* 415: 28-33.
8. Li, C., et al. 2008. Positive association between PDLIM5 and schizophrenia in the Chinese Han population. *Int. J. Neuropsychopharmacol.* 11: 27-34.

CHROMOSOMAL LOCATION

Genetic locus: PDLIM5 (human) mapping to 4q22.3; Pdlim5 (mouse) mapping to 3 H1.

SOURCE

PDLIM5 (Q-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PDLIM5 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82014 X, 200 μg /0.1 ml.

Blocking peptide available for competition studies, sc-82014 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PDLIM5 (Q-18) is recommended for detection of PDLIM5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PDLIM5 (Q-18) is also recommended for detection of PDLIM5 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for PDLIM5 siRNA (h): sc-76097, PDLIM5 siRNA (m): sc-76098, PDLIM5 shRNA Plasmid (h): sc-76097-SH, PDLIM5 shRNA Plasmid (m): sc-76098-SH, PDLIM5 shRNA (h) Lentiviral Particles: sc-76097-V and PDLIM5 shRNA (m) Lentiviral Particles: sc-76098-V.

PDLIM5 (Q-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PDLIM5: 64 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.


 MONOS
Satisfaction
Guaranteed

Try **PDLIM5 (G-2): sc-515621** or **PDLIM5 (JK-3R): sc-81813**, our highly recommended monoclonal alternatives to PDLIM5 (Q-18).