

PDLIM5 (E-25): sc-133900

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 α 1B (N-type calcium channel α 1B 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 (E-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic PDLIM5 peptide of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

PDLIM5 (E-25) is recommended for detection of PDLIM5 of mouse, rat, human and zebrafish 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 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.

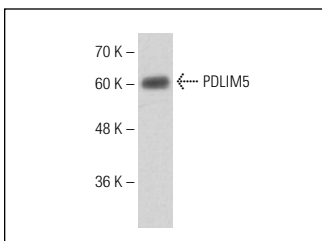
Molecular Weight of PDLIM5: 64 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or Hep G2 cell lysate: sc-2227.

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).

DATA



PDLIM5 (E-25): sc-133900. Western blot analysis of PDLIM5 expression in Hep G2 whole cell lysate.

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.

MONOS
Satisfaction
Guaranteed

Try **PDLIM5 (G-2): sc-515621** or **PDLIM5 (JK-3R): sc-81813**, our highly recommended monoclonal alternatives to PDLIM5 (E-25).