

PICK1 (N-18): sc-9539

BACKGROUND

Protein interacting with C kinase 1 (PICK1) is a PDZ-domain containing protein that is located in the perinuclear region and is phosphorylated in response to PKC α activation. PKC α , which is essential for the regulation of proliferation and differentiation in numerous cell types, contains within its catalytic region a PDZ-binding domain that is absent from other PKC isoforms. Mutation of the PICK1 PDZ domain inhibits the binding of PICK1 to PKC α . PICK1 also interacts with the carboxy terminus of α -amino-3-hydroxy-5-methyl-isoxazole-4-propionic acid (AMPA) receptor, a neurotransmitter receptor located at excitatory synapses, suggesting that PICK1 plays a role in the modulation of synaptic transmission by targeting and anchoring AMPA to specific synapses.

CHROMOSOMAL LOCATION

Genetic locus: PICK1 (human) mapping to 22q13.1; Pick1 (mouse) mapping to 15 E1.

SOURCE

PICK1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PICK1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9539 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PICK1 (N-18) is recommended for detection of PICK1 of mouse, rat and 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)], 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).

PICK1 (N-18) is also recommended for detection of PICK1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PICK1 siRNA (h): sc-36221, PICK1 siRNA (m): sc-36222, PICK1 shRNA Plasmid (h): sc-36221-SH, PICK1 shRNA Plasmid (m): sc-36222-SH, PICK1 shRNA (h) Lentiviral Particles: sc-36221-V and PICK1 shRNA (m) Lentiviral Particles: sc-36222-V.

Molecular Weight of PICK1: 50 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, mouse brain extract: sc-2253 or IMR-32 cell lysate: sc-2409.

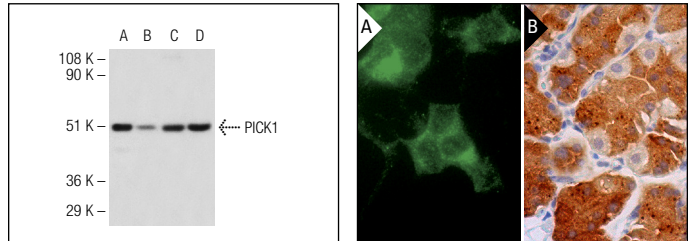
STORAGE

Store at 4 $^{\circ}$ 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.

DATA



PICK1 (N-18): sc-9539. Western blot analysis of PICK1 expression in SK-N-SH (A) and IMR-32 (B) whole cell lysates and rat brain (C) and mouse brain (D) tissue extracts.

PICK1 (N-18): sc-9539. 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 (B).

SELECT PRODUCT CITATIONS

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- Deval, E. 2004. ASIC2b-dependent regulation of ASIC3, an essential acid-sensing ion channel subunit in sensory neurons via the partner protein PICK1. *J. Biol. Chem.* 279: 19531-19539.
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- Lu, W., et al. 2005. PICK1 interacts with ABP/GRIP to regulate AMPA receptor trafficking. *Neuron* 47: 407-421.
- Yao, Y., et al. 2008. PKM ζ maintains late long-term potentiation by N-ethylmaleimide-sensitive factor/GluR2-dependent trafficking of post-synaptic AMPA receptors. *J. Neurosci.* 28: 7820-7827.
- Zhang, C.S., et al. 2008. Knock-in mice lacking the PDZ-ligand motif of mGluR7a show impaired PKC-dependent autoinhibition of glutamate release, spatial working memory deficits, and increased susceptibility to pentylenetetrazol. *J. Neurosci.* 28: 8604-8614.
- Jo, J., et al. 2008. Metabotropic glutamate receptor-mediated LTD involves two interacting Ca $^{2+}$ sensors, NCS-1 and PICK1. *Neuron* 60: 1095-1111.

MONOS
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Try **PICK1 (D-10): sc-390479** or **PICK1 (C-4): sc-74592**, our highly recommended monoclonal alternatives to PICK1 (N-18).