

PICK1 (C-20): sc-9541

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.

REFERENCES

1. Staudinger, J., et al. 1995. PICK1: a perinuclear binding protein and substrate for protein kinase C isolated by the yeast two-hybrid system. *J. Cell Biol.* 128: 263-271.
2. Staudinger, J., et al. 1997. Specific interaction of the PDZ domain protein PICK1 with the COOH terminus of protein kinase C- α . *J. Biol. Chem.* 272: 32019-32024.

CHROMOSOMAL LOCATION

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

SOURCE

PICK1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PICK1 of mouse 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-9541 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PICK1 (C-20) 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).

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.

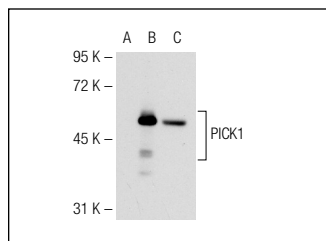
Molecular Weight of PICK1: 50 kDa.

Positive Controls: PICK1 (m): 293T Lysate: sc-122567, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

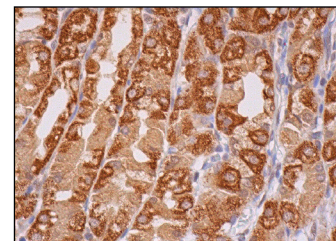
STORAGE

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

DATA



PICK1 (C-20): sc-9541. Western blot analysis of PICK1 expression in non-transfected: sc-117752 (A) and mouse PICK1 transfected: sc-122567 (B) 293T whole cell lysates and mouse brain tissue extract (C).



PICK1 (C-20): sc-9541. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Hruska-Hageman, A.M., et al. 2002. Interaction of the synaptic protein PICK1 (protein interacting with C kinase 1) with the non-voltage gated sodium channels BNC1 (brain Na⁺ channel 1) and ASIC. *Biochem. J.* 361: 443-450.
2. Bakshi, K., et al. 2009. Prenatal cocaine reduces AMPA receptor synaptic expression through hyperphosphorylation of the synaptic anchoring protein GRIP. *J. Neurosci.* 29: 6308-6319.
3. Selak, S., et al. 2009. A role for SNAP 25 in internalization of kainate receptors and synaptic plasticity. *Neuron* 63: 357-371.
4. Pierre, K., et al. 2009. Linking supply to demand: the neuronal monocarboxylate transporter MCT2 and the α -amino-3-hydroxyl-5-methyl-4-isoxazole-propionic acid receptor GluR2/3 subunit are associated in a common trafficking process. *Eur. J. Neurosci.* 29: 1951-1963.

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.



Try **PICK1 (D-10): sc-390479** or **PICK1 (C-4): sc-74592**, our highly recommended monoclonal alternatives to PICK1 (C-20).