

PICK1 (D-10): sc-390479



The Power to Question

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.
3. Xia, J., et al. 1999. Clustering of AMPA receptors by the synaptic PDZ domain-containing protein PICK1. *Neuron* 22: 179-187.
4. Wyszynski, M., et al. 1999. Association of AMPA receptors with a subset of glutamate receptor-interacting protein *in vivo*. *J. Neurosci.* 19: 6528-6537.

CHROMOSOMAL LOCATION

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

SOURCE

PICK1 (D-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-19 at the N-terminus of PICK1 of human origin.

PRODUCT

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

PICK1 (D-10) is available conjugated to agarose (sc-390479 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390479 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390479 PE), fluorescein (sc-390479 FITC), Alexa Fluor[®] 488 (sc-390479 AF488), Alexa Fluor[®] 546 (sc-390479 AF546), Alexa Fluor[®] 594 (sc-390479 AF594) or Alexa Fluor[®] 647 (sc-390479 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390479 AF680) or Alexa Fluor[®] 790 (sc-390479 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390479 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

PICK1 (D-10) is recommended for detection of PICK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PICK1 (D-10) 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.

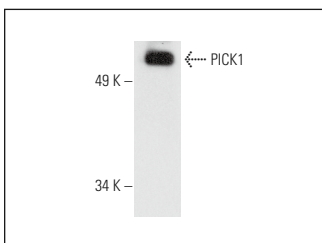
Molecular Weight of PICK1: 50 kDa.

Positive Controls: human smooth muscle extract: sc-363778.

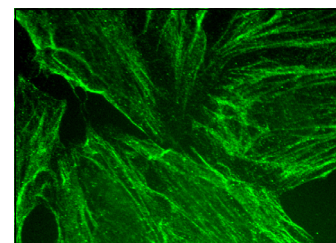
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



PICK1 (D-10): sc-390479. Western blot analysis of PICK1 expression in human smooth muscle tissue extract.



PICK1 (D-10): sc-390479. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. She, Z.Y., et al. 2021. Kinesin-7 CENP-E regulates the formation and structural maintenance of the acrosome. *Cell Tissue Res.* 383: 1167-1182.

STORAGE

Store at 4 $^{\circ}$ C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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