SANTA CRUZ BIOTECHNOLOGY, INC.

Cypin (H-300): sc-292545

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The assembly of neurotransmitter receptors and associated signal transduction machinery at synaptic sites involves postsynaptic density 95 (PSD-95) and related membrane-associated guanylate kinase (MAGUK) proteins. Cypin, (Cytoplasmic PSD-95 interactor, also designated guanine deaminase and nedasin S), regulates intermediate steps in postsynaptic protein sorting, such as synaptic clustering of MAGUK proteins, and associates with multiple members of the PSD-95 family. Expressed both pre- and post-synaptically, cypin is most prevalent within the cytoplasm of dendritic shafts and in the neck of synaptic spines. In non-neuronal cells, cypin is most highly expressed in the basal membrane of intestinal epithelial cells. Cypin is also highly expressed in kidney, liver, lung, brain, and spleen, with lower levels of expression in placenta, heart, and skeletal muscle. Native cypin may also be expressed as a dimer and a tetramer.

REFERENCES

1. Kim, E., et al. 1995. Clustering of Shaker-type K^+ channels by direct interaction with the PSD-95/SAP90 family for membrane-associated guanylate kinases. Nature 378: 85-88.
2. Kornau, H.C., et al. 1995. Domain interaction between NMDA receptor subunits and the postsynaptic density protein PDS-95. Science 269: 1737-1740.
3. Brenman, J.E., et al. 1996. Interaction of nitric oxide synthase with the postsynaptic density protein PSD-95 and α-1 syntrophin mediated by PDZ motifs. Cell 84: 757-767.
4. Firestein, B., et al. 1999. Cypin: a cytosolic regulator of PSD-95 postsynaptic targeting. Neuron 24: 659-672.
5. Yuan, G., et al. 1999. Cloning and characterization of human guanine deaminase. J. Biol. Chem. 274: 8175-8180.
6. Kuwahara, H., et al. 1999. A novel NE-dlg/SAP102-associated protein, p51-nedasin, related to the amidohydrolase superfamily, interferes with the association between NE-dlg/SAP102 and N-Methyl-D-aspartate receptor. J. Biol. Chem. 274: 32204-32214.

CHROMOSOMAL LOCATION

Genetic locus: GDA (human) mapping to 9q21.13; Gda (mouse) mapping to 19 B.

SOURCE

Cypin (H-300) is a rabbit polyclonal antibody raised against amino acids 50-349 mapping near the N-terminus of Cypin of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

Cypin (H-300) is recommended for detection of Cypin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Cypin (H-300) is also recommended for detection of Cypin in additional species, including canine and bovine.

Suitable for use as control antibody for Cypin siRNA (h): sc-106853, Cypin siRNA (m): sc-142742, Cypin shRNA Plasmid (h): sc-106853-SH, Cypin shRNA Plasmid (m): sc-142742-SH, Cypin shRNA (h) Lentiviral Particles: sc-106853-V and Cypin shRNA (m) Lentiviral Particles: sc-142742-V.

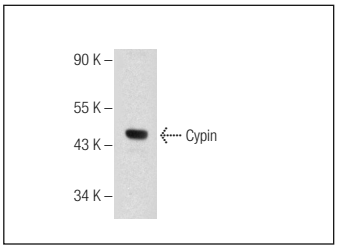
Molecular Weight of Cypin: 50 kDa.

Positive Controls: NRK whole cell lysate: sc-364197.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Cypin (H-300): sc-292545. Western blot analysis of Cypin expression in NRK whole cell lysate.

RESEARCH USE

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