

SAP 97 (P-14): sc-26533

BACKGROUND

The discs large (dlg) tumor suppressor gene was first identified in *Drosophila* through genetic analysis of germline mutations. Several mammalian homologs were subsequently identified and categorized into a protein family designated MAGUK (membrane-associated guanylate kinase homolog). The mammalian homolog of dlg, SAP 97, is also known as hdlg-1 (human) and NE-dlg (neuronal and endocrine). The rat synaptic protein SAP 90 (also designated PSD-95) also shares homology with these proteins. MAGUKs are localized at the membrane-cytoskeleton interface and contain several distinct domains which suggest a role for these proteins in intracellular signal transduction. Interaction of hdlg-1 and NE-dlg with the tumor suppressor protein APC suggest that MAGUK proteins may also play a role in regulation of growth.

REFERENCES

1. Gateff, E., et al. 1989. Tumor-suppressor genes of *Drosophila melanogaster*. Crit. Rev. Oncog. 1: 221-245.
2. Cho, K.O., et al. 1992. The rat brain postsynaptic density fraction contains a homolog of the *Drosophila* discs-large tumor suppressor protein. Neuron 9: 929-942.
3. Woods, D.F., et al. 1993. ZO-1, dlgA and PSD-95/SAP90: homologous proteins in tight, septate and synaptic cell junctions. Mech. Dev. 44: 85-89.

CHROMOSOMAL LOCATION

Genetic locus: DLG1 (human) mapping to 3q29; Dlg1 (mouse) mapping to 16 B2.

SOURCE

SAP 97 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAP 97 of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-26533 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SAP 97 (P-14) is recommended for detection of SAP 97 of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for SAP 97 siRNA (h): sc-36452, SAP 97 siRNA (m): sc-36453, SAP 97 shRNA Plasmid (h): sc-36452-SH, SAP 97 shRNA Plasmid (m): sc-36453-SH, SAP 97 shRNA (h) Lentiviral Particles: sc-36452-V and SAP 97 shRNA (m) Lentiviral Particles: sc-36453-V.

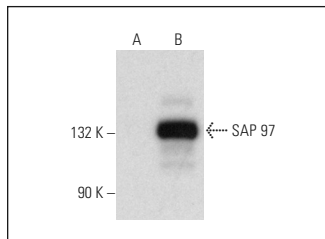
Molecular Weight of SAP 97: 130-135 kDa.

Positive Controls: SAP 97 (m): 293T Lysate: sc-123350.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SAP 97 (P-14): sc-26533. Western blot analysis of SAP 97 expression in non-transfected: sc-117752 (A) and mouse SAP 97 transfected: sc-123350 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Potapova, I.A., et al. 2007. Voltage-gated ion channel Kv4.3 is associated with Rap guanine nucleotide exchange factors and regulates angiotensin receptor type 1 signaling to small G protein Rap. FEBS J. 274: 4375-4384.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **SAP 97 (2D11): sc-9961** or **SAP 97 (D-9): sc-514478**, our highly recommended monoclonal alternatives to SAP 97 (P-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SAP 97 (2D11): sc-9961**.