SANTA CRUZ BIOTECHNOLOGY, INC.

SAPAP4 (S-20): sc-86852

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

A guanylate kinase is a phosphotransferase that produces ADP and GDP from the substrates ATP and GMP. SAPAP4, also known as DAP-4 (disks large-associated protein 2) and PSD-95/SAP90-binding protein 4, is a 992 amino acid protein that likely localizes to the postsynaptic membrane of neurons to enhance neuronal signaling. SAPAP4 could act as a signaling molecule which interacts with the human genes DLG1 and DLG4/PSD-95. The gene encoding SAPAP4, DLGAP4, maps to human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes which are thought important for seminal production and may be potential targets for male contraception.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DLGAP4 (human) mapping to 20q11.23; Dlgap4 (mouse) mapping to 2 H1.

SOURCE

SAPAP4 (S-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SAPAP4 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86852 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SAPAP4 (S-20) is recommended for detection of SAPAP4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other SAPAP family members.

SAPAP4 (S-20) is also recommended for detection of SAPAP4 in additional species, including equine, canine and avian.

Suitable for use as control antibody for SAPAP4 siRNA (h): sc-76449, SAPAP4 siRNA (m): sc-153221, SAPAP4 shRNA Plasmid (h): sc-76449-SH, SAPAP4 shRNA Plasmid (m): sc-153221-SH, SAPAP4 shRNA (h) Lentiviral Particles: sc-76449-V and SAPAP4 shRNA (m) Lentiviral Particles: sc-153221-V.

Molecular Weight of SAPAP4: 108 kDa.

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) 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.

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.