APLP2 (V-20): sc-23821

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

BACKGROUND

APLP1 (amyloid precursor-like protein 1) is a protein whose predicted amino acid sequence is 42% identical and 64% similar to that of the amyloid β protein precursor (APP). This 653-amino acid protein is also similar to APP in overall structure. The gene which encodes APLP1 maps to human chromosome 19cen-q13.2. Since congenital nephrotic syndrome (CNF) maps close to APLP1, and because of the proposed interference of amyloid with basement membrane assembly, APLP1 had incorrectly been considered a candidate gene for CNF. APLP2 is a human sperm membrane protein which contains a segment with high homology to the transmembrane-cytoplasmic domains of APP found in brain plaques of Alzheimer disease patients. The human amyloid precursor-like protein APLP2 is a highly conserved homolog of a sequence-specific DNA-binding mouse protein with an important function in the cell cycle. The gene which encodes APLP2 maps to human chromosome 11q24.3.

REFERENCES

1. Yan, Y.C., et al. 1990. Characterization of cDNA encoding a human sperm membrane protein related to A4 amyloid protein. Proc. Nat. Acad. Sci. 87: 2405-2408.

2. Wasco, W., et al. 1992. Identification of a mouse brain cDNA that encodes a protein related to the Alzheimer-associated amyloid β-protein precursor. Proc. Nat. Acad. Sci. 89: 10758-10762.

3. Wasco, W., et al. 1993. The amyloid precursor-like protein (APLP) gene maps to the long arm of human chromosome 19. Genomics 15: 237-239.

4. Lenkkeri, U., et al. 1998. Structure of the human amyloid-precursor-like protein gene APLP1 at 19q13.1. Hum. Genet. 102: 192-196.

5. Leach, R., et al. 1999. Assignment of amyloid-precursor-like protein 2 gene (APLP2) to 11q24 by fluorescent in situ hybridization. Cytogenet. Cell Genet. 87: 215-216.

CHROMOSOMAL LOCATION

Genetic locus: APLP2 (human) mapping to 11q24.3; Aplp2 (mouse) mapping to 9 A4.

SOURCE

APLP2 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of APLP2 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.

Blocking peptide available for competition studies, sc-23821 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

APLP2 (V-20) is recommended for detection of APLP2 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).

APLP2 (V-20) is also recommended for detection of APLP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for APLP2 siRNA (h): sc-41909, APLP2 siRNA (m): sc-41910, APLP2 shRNA Plasmid (h): sc-41909-SH, APLP2 shRNA Plasmid (m): sc-41910-SH, APLP2 shRNA (h) Lentiviral Particles: sc-41909-V and APLP2 shRNA (m) Lentiviral Particles: sc-41910-V.

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) 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.

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.