SANTA CRUZ BIOTECHNOLOGY, INC.

PIK3IP1 (S-14): sc-86786

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The Power to Question

BACKGROUND

PIK3IP1 (phosphoinositide-3-kinase interacting protein 1), also known as HGFL, is a 263 amino acid single-pass type I membrane protein that contains one kringle domain. Expressed as three alternatively spliced isoforms, PIK3IP1 functions as a negative regulator of PI 3-kinase and is involved in the suppression of PI 3-kinase-associated hepatocellular carcinoma. The gene encoding PIK3IP1 maps to human chromosome 22q12.2, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, neurofibromatosis type 2, autism and schizophrenia. Additionally, translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia chromosome and the subsequent production of the novel fusion protein Bcr-Abl, a potent cell proliferation activator found in several types of leukemias.

REFERENCES

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4. Arinami, T. 2006. Analyses of the associations between the genes of 22q11 deletion syndrome and schizophrenia. J. Hum. Genet. 51: 1037-1045.
5. Paylor, R., et al. 2006. TBX1 haploinsufficiency is linked to behavioral disorders in mice and humans: implications for 22q11 deletion syndrome. Proc. Natl. Acad. Sci. USA 103: 7729-7734.
6. Hay, B.N. 2007. Deletion 22q11: spectrum of associated disorders. Semin. Pediatr. Neurol. 14: 136-139.
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8. Zhu, Z., et al. 2007. PI3K is negatively regulated by PIK3IP1, a novel p110 interacting protein. Biochem. Biophys. Res. Commun. 358: 66-72.
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CHROMOSOMAL LOCATION

Genetic locus: PIK3IP1 (human) mapping to 22q12.2.

SOURCE

PIK3IP1 (S-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of PIK3IP1 of human origin.

STORAGE

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

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-86786 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PIK3IP1 (S-14) is recommended for detection of PIK3IP1 of 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 PIK3IP1-3.

PIK3IP1 (S-14) is also recommended for detection of PIK3IP1 in additional species, including bovine.

Suitable for use as control antibody for PIK3IP1 siRNA (h): sc-76141, PIK3IP1 shRNA Plasmid (h): sc-76141-SH and PIK3IP1 shRNA (h) Lentiviral Particles: sc-76141-V.

Molecular Weight (predicted) of PIK3IP1 isoforms: 28/25/11 kDa.

Molecular Weight (observed) of PIK3IP1: 46 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

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.