

# PIK3IP1 (B-12): sc-365778

## 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 22, 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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- 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.
- Zhu, Z., et al. 2007. PI3K is negatively regulated by PIK3IP1, a novel p110 interacting protein. *Biochem. Biophys. Res. Commun.* 358: 66-72.
- Ahronowitz, I., et al. 2007. Mutational spectrum of the NF2 gene: a meta-analysis of 12 years of research and diagnostic laboratory findings. *Hum. Mutat.* 28: 1-12.
- Hay, B.N. 2007. Deletion 22q11: spectrum of associated disorders. *Semin. Pediatr. Neurol.* 14: 136-139.
- He, X., et al. 2008. PIK3IP1, a negative regulator of PI3K, suppresses the development of hepatocellular carcinoma. *Cancer Res.* 68: 5591-5598.

## CHROMOSOMAL LOCATION

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

## SOURCE

PIK3IP1 (B-12) is a mouse monoclonal antibody raised against amino acids 84-263 mapping at the C-terminus of PIK3IP1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

PIK3IP1 (B-12) is recommended for detection of PIK3IP1 of human origin by Western Blotting (starting dilution 1:100, 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 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.

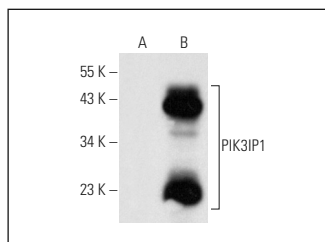
Molecular Weight (observed) of PIK3IP1: 46 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or human PIK3IP1 transfected HEK293T whole cell lysate.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



PIK3IP1 (B-12): sc-365778. Western blot analysis of PIK3IP1 expression in non transfected (A) and human PIK3IP1 transfected (B) HEK293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Gheyas, R., et al. 2022. Suppression of PI3K signaling is linked to autophagy activation and the spatiotemporal induction of the lens organelle free zone. *Exp. Cell Res.* 412: 113043.

## 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.