# SANTA CRUZ BIOTECHNOLOGY, INC.

# PIP1 (A-15): sc-101866



The Power to Question

#### BACKGROUND

PAK1-interacting protein 1 (PIP1), also known as p21-activated protein kinaseinteracting protein 1 or WDR repeat-containing protein 84, is a 392 amino acid nuclear protein. PIP1 acts as a negative regulator of  $\alpha$ PAK by binding to the N-terminal regulatory domain of  $\alpha$ PAK. This interaction results in an inactive homodimer conformation of  $\alpha$ PAK, which inhibits the binding of small, activating GTPases. Overexpression of PIP1 causes abnormally rounded cell morphology and reorganized Actin stress fibers in embryonic fibroblasts. Containing five WD repeat domains, PIP1 is expressed in the heart, liver, lung, kidney, muscle, brain, small intestine, colon and thymus.

## REFERENCES

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- Beausoleil, S.A., Jedrychowski, M., Schwartz, D., Elias, J.E., Villén, J., Li, J., Cohn, M.A., Cantley, L.C. and Gygi, S.P. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc. Natl. Acad. Sci. USA 101: 12130-12135.
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- Nikoli, M. 2008. The PAK1 kinase: an important regulator of neuronal morphology and function in the developing forebrain. Mol. Neurobiol. 37: 187-202.

#### CHROMOSOMAL LOCATION

Genetic locus: PAK1IP1 (human) mapping to 6p24.2.

#### SOURCE

PIP1 (A-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping to N-terminal and C-terminal peptides of PIP1 of human origin.

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

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

#### PRODUCT

Each vial contains 100  $\mu g$  lgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **APPLICATIONS**

PIP1 (A-15) is recommended for detection of PIP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PIP1 siRNA (h): sc-95403, PIP1 shRNA Plasmid (h): sc-95403-SH and PIP1 shRNA (h) Lentiviral Particles: sc-95403-V.

Molecular Weight of PIP1: 44 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or SK-N-MC cell lysate: sc-2237.

## **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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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).

# DATA



PIP1 (A-15): sc-101866. Western blot analysis of PIP1 expression in K-562 (A), SK-N-MC (B) and Hep G2 (C) nuclear extracts.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.