

PAK6 (C-2): sc-393102

BACKGROUND

The p21^{CDKN1A}-activated kinases (PAKs) are serine/threonine protein kinases that bind to activated small GTPases, including Cdc42 and Rac, and influence transcription, cell morphology (cytoskeleton rearrangement), motility, and apoptosis. PAK family members contain an amino-terminal Cdc42/Rac interactive binding (CRIB) domain and a carboxyl-terminal kinase domain. PAK6 protein cotranslocates into the nucleus with androgen receptor, which is a steroid hormone-dependent transcription factor that is important for male sexual differentiation and development, in response to androgen. PAK6 transcripts are present at high levels in brain and testis, with lower levels in multiple tissues including prostate and breast. The human PAK6 gene maps to chromosome 15q15.1.

REFERENCES

- Jaffer, Z.M. and Chernoff, J. 2002. p21-activated kinases: three more join the Pak. *Int. J. Biochem. Cell Biol.* 34: 713-717.
- Yang, F., Li, X., Sharma, M., Zarnegar, M., Lim, B. and Sun, Z. 2001. Androgen receptor specifically interacts with a novel p21-activated kinase, PAK6. *J. Biol. Chem.* 276: 15345-15353.
- Lee, S.H., Eom, M., Lee, S.J., Kim, S., Park, H.J. and Park, D. 2001. β Pix-enhanced p38 activation by Cdc42/Rac/PAK/MKK3/6-mediated pathway. Implication in the regulation of membrane ruffling. *J. Biol. Chem.* 276: 25066-25072.
- Schrantz, N., da Silva Correia, J., Fowler, B., Ge, Q., Sun, Z. and Bokoch, G.M. 2004. Mechanism of p21-activated kinase 6-mediated inhibition of androgen receptor signaling. *J. Biol. Chem.* 279: 1922-1931.
- Kaur, R., Liu, X., Gjoerup, O., Zhang, A., Yuan, X., Balk, S.P., Schneider, M.C. and Lu, M.L. 2005. Activation of p21-activated kinase 6 by MAP kinase kinase 6 and p38 MAP kinase. *J. Biol. Chem.* 280: 3323-3330.
- LocusLink Report (LocusID: 56924). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: PAK6 (human) mapping to 15q15.1.

SOURCE

PAK6 (C-2) is a mouse monoclonal antibody raised against amino acids 71-370 mapping within an internal region of PAK6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO 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 for detailed protocols and support products.

APPLICATIONS

PAK6 (C-2) is recommended for detection of PAK6 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 PAK6 siRNA (h): sc-39063, PAK6 shRNA Plasmid (h): sc-39063-SH and PAK6 shRNA (h) Lentiviral Particles: sc-39063-V.

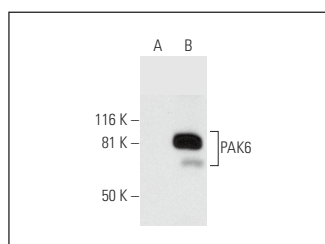
Molecular Weight of PAK6: 75 kDa.

Positive Controls: PAK6 (h4): 293 Lysate: sc-158808.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



PAK6 (C-2): sc-393102. Western blot analysis of PAK6 expression in non-transfected: sc-110760 (A) and human PAK6 transfected: sc-158808 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

- Dukel, M. and Fiskin, K. 2023. Combination of PAKs inhibitors IPA-3 and PF-3758309 effectively suppresses colon carcinoma cell growth by perturbing DNA damage response. *Int. J. Radiat. Biol.* 99: 340-354.

RESEARCH USE

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