SANTA CRUZ BIOTECHNOLOGY, INC.

PAK6 (K-17): sc-25976

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 co-translocates 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

1. 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.
2. Lee, S.H., Eom, M., Lee, S.J., Kim, S., Park, H.J. and Park, D. 2001. βPix-enhanced p38 activation by Cdc42/Rac/PAK/MKK3/6-mediated pathway. Implication in the regulation of membrane ruffling. J. Biol. Chem. 276: 25066-25072.
3. Jaffer, Z.M. and Chernoff, J. 2002. p21-activated kinases: three more join the PAK. Int. J. Biochem. Cell Biol. 34: 713-717.
4. 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.
5. 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.
6. LocusLink Report (LocusID: 56924). http://www.ncbi.nlm. nih.gov/LocusLink/

CHROMOSOMAL LOCATION

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

SOURCE

PAK6 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PAK6 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-25976 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

PAK6 (K-17) is recommended for detection of PAK6 of human origin by Western Blotting (starting dilution 1:200, 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).

PAK6 (K-17) is also recommended for detection of PAK6 in additional species, including equine, canine, bovine and porcine.

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.

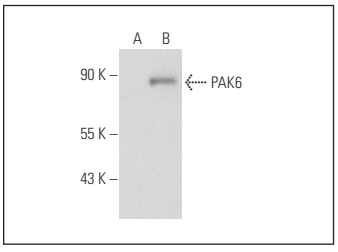
Molecular Weight of PAK6: 75 kDa.

Positive Controls: PAK6 (h4): 293 Lysate: sc-158808, SK-N-MC cell lysate: sc-2237.

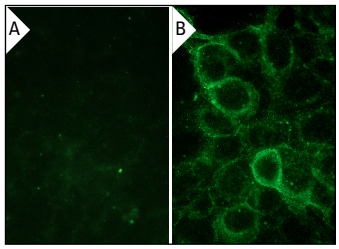
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



PAK6 (K-17): sc-25976. Western blot analysis of PAK6 expression in non-transfected: sc-117752 (**A**) and human PAK6 transfected: sc-158808 (**B**) 293T whole cell lysates.



PAK6 (K-17): sc-25976. Immunofluorescence staining of methanol-fixed untransfected (**A**) and human PAK6 transfected HEK 293T cells (**B**).

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.