

PAK6 (H-6): sc-393075

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

1. Yang, F., et al. 2001. Androgen receptor specifically interacts with a novel p21-activated kinase, PAK6. *J. Biol. Chem.* 276: 15345-15353.
2. Lee, S.H., et al. 2001. BetaPix-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., et al. 2004. Mechanism of p21-activated kinase 6-mediated inhibition of androgen receptor signaling. *J. Biol. Chem.* 279: 1922-1931.

CHROMOSOMAL LOCATION

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

SOURCE

PAK6 (H-6) 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 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PAK6 (H-6) is available conjugated to agarose (sc-393075 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393075 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393075 PE), fluorescein (sc-393075 FITC), Alexa Fluor[®] 488 (sc-393075 AF488), Alexa Fluor[®] 546 (sc-393075 AF546), Alexa Fluor[®] 594 (sc-393075 AF594) or Alexa Fluor[®] 647 (sc-393075 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393075 AF680) or Alexa Fluor[®] 790 (sc-393075 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

PAK6 (H-6) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

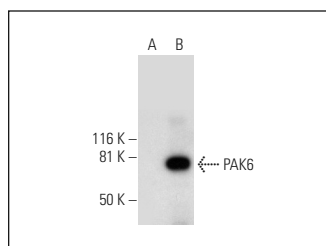
Molecular Weight of PAK6: 75 kDa.

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

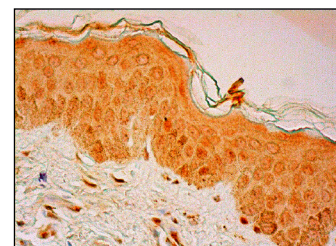
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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 BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BPHRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PAK6 (H-6): sc-393075. Western blot analysis of PAK6 expression in non-transfected: sc-110760 (A) and human PAK6 transfected: sc-158808 (B) 293 whole cell lysates.



PAK6 (H-6): sc-393075. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic and nuclear staining of keratinocytes, fibroblasts, Langerhans cells and melanocytes.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2016. P21-activated kinase inhibitors FRAX486 and IPA3: inhibition of prostate stromal cell growth and effects on smooth muscle contraction in the human prostate. *PLoS ONE* 11: e0153312.

RESEARCH USE

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