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PAK6 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7931a

Product Information

Application	WB, E
Primary Accession	Q9NQU5
Other Accession	NP_064553
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1237
Calculated MW	74869
Antigen Region	116-146

Additional Information

Gene ID	106821730;56924
Other Names	Serine/threonine-protein kinase PAK 6, PAK-5, p21-activated kinase 6, PAK-6, PAK6, PAK5
Target/Specificity	This PAK6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 116-146 amino acids from human PAK6.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PAK6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PAK6
Synonyms	PAK5
Function	Serine/threonine protein kinase that plays a role in the regulation of gene

	transcription. The kinase activity is induced by various effectors including AR or MAP2K6/MAPKK6. Phosphorylates the DNA-binding domain of androgen receptor/AR and thereby inhibits AR- mediated transcription. Also inhibits ESR1-mediated transcription. May play a role in cytoskeleton regulation by interacting with IQGAP1. May protect cells from apoptosis through phosphorylation of BAD.
Cellular Location	Cytoplasm. Nucleus. Note=Cotranslocates into nucleus with AR in response to androgen induction
Tissue Location	Selectively expressed in brain and testis, with lower levels in multiple tissues including prostate and breast

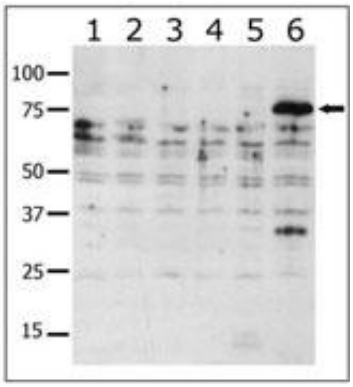
Background

The PAK6 protein shares a high degree of sequence similarity with p21-activated kinase (PAK) family members. The proteins of this family are Rac/Cdc42-associated Ste20-like Ser/Thr protein kinases, characterized by a highly conserved amino-terminal Cdc42/Rac interactive binding (CRIB) domain and a carboxyl-terminal kinase domain. PAK kinases are implicated in the regulation of a number of cellular processes, including cytoskeleton rearrangement, apoptosis and the MAP kinase signaling pathway. PAK6 was found to interact with androgen receptor (AR), which is a steroid hormone-dependent transcription factor that is important for male sexual differentiation and development. The p21-activated protein kinase 6 gene was found to be highly expressed in testis and prostate tissues and the encoded protein was shown to cotranslocate into the nucleus with AR in response to androgen.

References

Ching, Y.P., et al., J. Biol. Chem. 278(36):33621-33624 (2003). Pandey, A., et al., Oncogene 21(24):3939-3948 (2002). Yang, F., et al., J. Biol. Chem. 276(18):15345-15353 (2001).

Images



Western blot analysis of anti-PAK6 Pab (Cat. #AP7931a) in lysates from transiently transfected COS7 cells. Lane 1: negative control, Lane 2: PAK1-expressing cells, Lane 3: PAK2-expressing cells, Lane 4: PAK4-expressing cells, Lane 5: PAK5-expressing cells, and Lane 6: PAK6-expressing cells. PAK6 (arrow) was detected using purified Pab. Data is kindly provided by Drs. Z.M. Jaffer and J. Chernoff from the Fox Chase Cancer Center (Philadelphia, PA).