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PAK6 Rabbit pAb

Catalog # AP99091

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NQU5
Other Accession	Q9NQU5
Reactivity	Mouse
Predicted	Rat, Pig, Human, Rabbit, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	74869
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PAK6
Epitope Specificity	511-610/681
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily. Contains 1 CRIB domain.
SUBUNIT	Interacts tightly with GTP-bound but not GDP-bound CDC42/p21 and RAC1. Interacts with the androgen receptor AR and the estrogen receptor ESR1. Interacts with IQGAP1 and PPM1B.
Post-translational modifications	Autophosphorylated. Phosphorylated by MAP2K6//MAPKK6, leading to PAK6 activation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a protein that 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. The protein encoded by this gene 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.

Additional Information

Gene ID	56924
Other Names	PAK5; PAK6_HUMAN; PAK6; PAK-5; p21-activated kinase 6 (PAK-6); 2.7.11.1; p21 (RAC1) activated kinase 6; p21(CDKN1A)-activated kinase 6; p21 protein

	(Cdc42/Rac)-activated kinase 6
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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