

Product name:	PAK β (phospho Ser154) Rabbit Polyclonal Antibody
Cat number:	ABN05207
Conjugate:	Unconjugated
Size:	100 μ L
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human PAK3 around the phosphorylation site of Ser154. AA range:121-170
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight:	72kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The protein encoded by this gene is a serine-threonine kinase and forms an activated complex with GTP-bound RAS-like (P21), CDC2 and RAC1. This protein may be necessary for dendritic development and for the rapid cytoskeletal reorganization in dendritic spines associated with synaptic plasticity. Defects in this gene are the cause of non-syndromic mental retardation X-linked type 30 (MRX30), also called X-linked mental retardation type 47 (MRX47). Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Apr 2016], catalytic activity: ATP + a protein = ADP + a phosphoprotein., cofactor: Magnesium., disease: Defects in PAK3 are the cause of mental retardation X-linked type 30 (MRX30) [MIM:300558]; also called X-linked mental retardation type 47 (MRX47). Mental retardation is a mental disorder characterized by significantly sub-average general intellectual functioning associated with impairments in adaptive behavior and manifested during the developmental period. Non-syndromic mental retardation patients do not manifest other clinical signs., enzyme regulation: Activated by binding small G proteins. Binding of GTP-bound CDC42 or RAC1 to the autoregulatory region releases monomers from the autoinhibited dimer, enables phosphorylation of Thr-436 and allows the kinase domain to adopt an active structure., function: Key regulator of synapse formation and plasticity in the hippocampus., PTM: Autophosphorylated when activated by CDC42/p21., similarity: Belongs to the protein kinase superfamily., similarity: Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily., similarity: Contains 1 CRIB domain., similarity: Contains 1 protein kinase domain., subunit: Interacts tightly with GTP-bound but not GDP-bound CDC42/p21 and RAC1. Shows highly specific binding to the SH3 domains of phospholipase C-gamma and of adapter protein NCK., tissue specificity: Highly expressed in postmitotic neurons of the developing and postnatal cerebral cortex and hippocampus.,