

## Summary

<b>Production Name</b>	PAK $\beta$ Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	PAK3
<b>Alternative Names</b>	PAK3; OPHN3; Serine/threonine-protein kinase PAK 3; Beta-PAK; Oligophrenin-3; p21-activated kinase 3; PAK-3
<b>Gene ID</b>	5063.0
<b>SwissProt ID</b>	O75914.The antiserum was produced against synthesized peptide derived from human PAK3. AA range:121-170

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000..
<b>Molecular Weight</b>	72kD

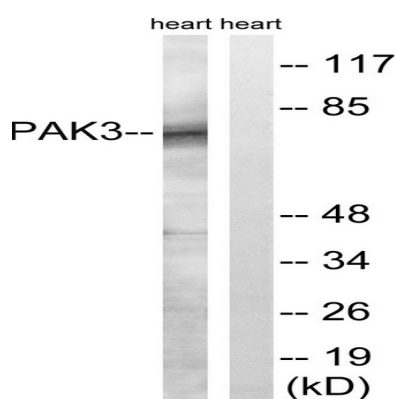
## Background

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.,

## Research Area

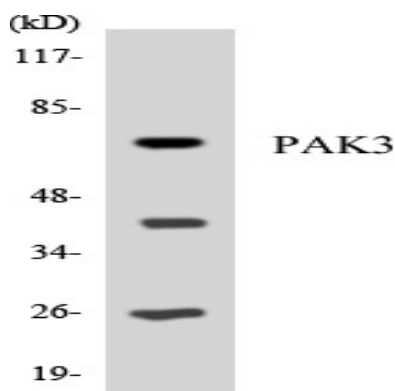
ErbB\_HER; Axon guidance; Focal adhesion; T\_Cell\_Receptor; Regulates Actin and Cytoskeleton; Renal cell carcinoma;

## Image Data

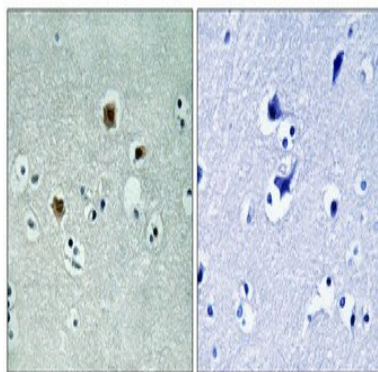


Western blot analysis of lysates from rat heart cells, using PAK3 Antibody. The lane on the right is blocked with the synthesized peptide.

**Product Name: PAK $\beta$  Rabbit Polyclonal Antibody**  
**Catalog #: APRab15716**



Western blot analysis of the lysates from HeLa cells using PAK3 antibody.



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°,overnight) . High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.

## **Note**

For research use only.