



# PAK $\beta$ (phospho Ser154) Polyclonal Antibody

Catalog No	BYab-14499
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	PAK3
Protein Name	Serine/threonine-protein kinase PAK 3
Immunogen	The antiserum was produced against synthesized peptide derived from human PAK3 around the phosphorylation site of Ser154. AA range:121-170
Specificity	Phospho-PAK $\beta$ (S154) Polyclonal Antibody detects endogenous levels of PAK $\beta$ protein only when phosphorylated at S154.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	PAK3; OPHN3; Serine/threonine-protein kinase PAK 3; Beta-PAK; Oligophrenin-3; p21-activated kinase 3; PAK-3
Observed Band	72kD
Cell Pathway	Cytoplasm .
Tissue Specificity	Restricted to the nervous system. Highly expressed in postmitotic neurons of the developing and postnatal cerebral cortex and hippocampus.
Function	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 adaptative 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

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allows the kinase domain to adopt an active structure.,function:Key regulator of synapse formation and plasticity in the hippocampus.,PTM:Autophosphorylated whe

## 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],

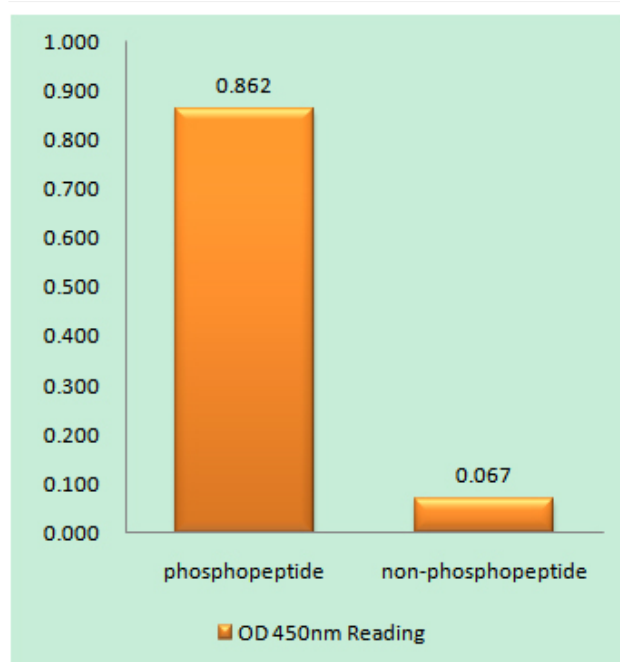
## matters needing attention

Avoid repeated freezing and thawing!

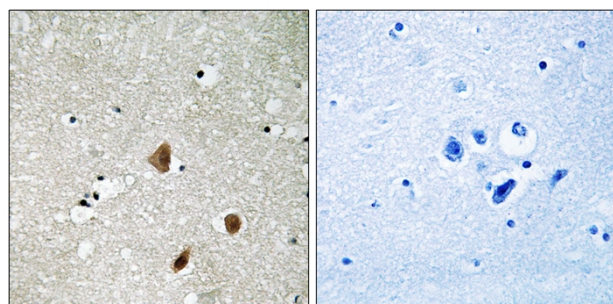
## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

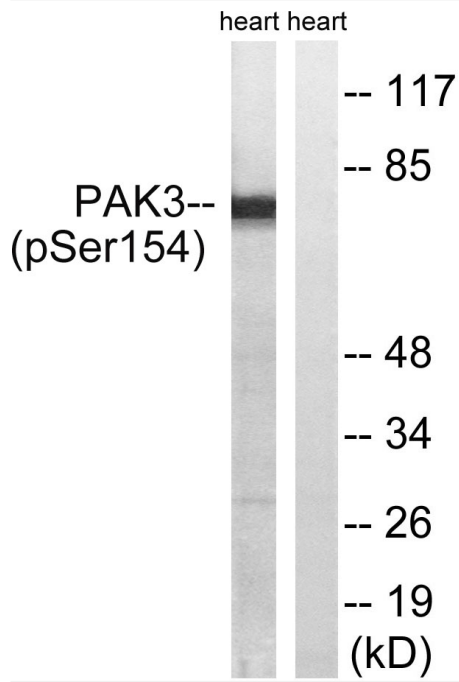
## Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PAK3 (Phospho-Ser154) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using PAK3 (Phospho-Ser154) Antibody. The picture on the right is blocked with the phosphopeptide.



Western blot analysis of lysates from rat heart, using PAK3 (Phospho-Ser154) Antibody. The lane on the right is blocked with the phospho peptide.