

ARG52386 anti-PAK1 phospho (Thr84) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PAK1 phospho (Thr84)
Tested Reactivity	Hu, Ms
Predict Reactivity	Bov, Rat, Chk, Dog, NHuPrm, Sheep, Zfsh
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PAK1
Species	Human
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr84 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	PAKalpha; Serine/threonine-protein kinase PAK 1; Alpha-PAK; p65-PAK; EC 2.7.11.1; PAK-1; p21-activated kinase 1

Application Instructions

Application table	Application	Dilution
	WB	1:1000
Application Note	<p>Specific for the ~68k PAK1 phosphorylated at Thr84.</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>	

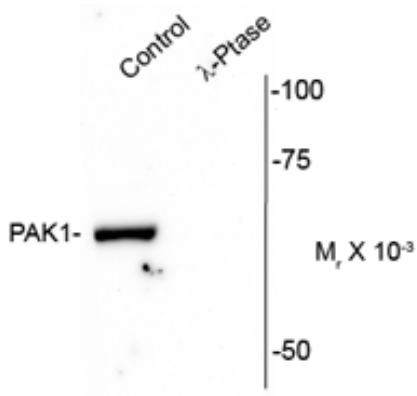
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 5058 Human Swiss-port # Q13153 Human
Gene Symbol	PAK1
Gene Full Name	p21 protein (Cdc42/Rac)-activated kinase 1
Background	PAKs, p21 activated kinases, are a family of serine/threonine protein kinases comprised of six isoforms, PAK1-6, and they play important roles in cytoskeleton dynamics, cell survival and proliferation (Ye et al, 2012). Each of these isoforms contains a C-terminal catalytic domain and an N-terminal regulatory domain with a small G protein binding motif (Chen et al, 2004). OSR1, oxidative stress response 1, is activated only by osmotic stresses, like sorbital or NaCl (Chen et al, 2004). It has been predicted that OSR1 phosphorylates PAK1 in the regulatory domain at thr84 and inhibits activation of JNK and MAPK pathway. (Chen et al, 2004). It has also been suggested that OSR1 may have a regulating function with actin cytoskeleton because it can phosphorylate PAK1 at thr84 and bind to gelsolin (Chen et al, 2004).
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Microbiology and Infectious Disease antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	61 kDa
PTM	Autophosphorylated in trans, meaning that in a dimer, one kinase molecule phosphorylates the other one. Activated by autophosphorylation at Thr-423 in response to a conformation change, triggered by interaction with GTP-bound CDC42 or RAC1. Activated by phosphorylation at Thr-423 by BRSK2 and by PDPK1. Phosphorylated by JAK2 in response to PRL; this increases PAK1 kinase activity. Phosphorylated at Ser-21 by PKB/AKT; this reduces interaction with NCK1 and association with focal adhesion sites.

Images



ARG52386 anti-PAK1 phospho (Thr84) antibody WB image

Western blot: Mouse hippocampal lysate showing specific immunolabeling of the ~68k PAK1 protein phosphorylated at Thr 84 (control) stained with ARG52386 anti-PAK1 phospho (Thr84) antibody.

Phosphospecificity is shown in the second lane (lambda-phosphatase: λ-Ptase).

The blot is identical to the control except that the lysate was incubated in λ-Ptase (800 units/1mg protein for 30 min).

The immunolabeling is completely eliminated by treatment with λ-Ptase.