SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalogue #	Aliquot Size
P02-65BR-100	100 µg

Anti-phospho-PAK1 (Thr212)

Rabbit Polyclonal Antibody

Catalog # P02-65BR
Lot # J1178-19

Cited Applications
WB, IHC

Suggested Dilutions:
WB: 1:500-1:1000 IHC: 1:50-1:100

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity
Recognizes the PAK1 protein phosphorylated at threonine 212

Cross Reactivity
Human, Mouse and Rat

Host/Isotype/Clone#
Rabbit, IgG

Immunogen
Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr212

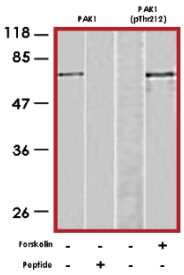
Formulation
PBS (pH 7.4) 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Scientific Background
In mammals, there are several isoforms of p21-activated protein kinases or PAKs. PAKs 1, 2 and 3 are members of the serine/threonine p21-activating kinases that serve as targets for the small GTP binding proteins Cdc42 and RAC1. They have been implicated in wide range of biological activities, which include cytoskeletal reorganization, cellular proliferation and nuclear signaling. CDC42 and RAC1 induce autophosphorylation of PAK2, which stimulates sustained phosphorylation of other substrates (2). ERK phosphorylates and binds to Thr212 of PAK1. Thus, PAK1 may serve as a scaffold for a protein complex, which includes RAF, MEK and ERK (3).

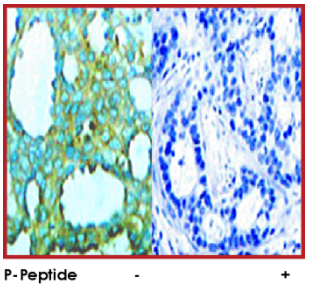
References

1. Martin, G A. et.al: A novel serine kinase activated by rac1/CDC42Hs-dependent autophosphorylation is related to PAK65 and STE20. EMBO J. 14: 1970-1978, 1995.
2. Jakobi R. et al: Substrates enhance autophosphorylation and activation of p21-activated protein kinase gamma-PAK in the absence of activation loop phosphorylation. Eur J Biochem 267:4414-4421, 2000.
3. Sundberg-Smith L J. et al: Adhesion stimulates PAK1/ERK2 association and leads to ERK-dependent PAK1 Thr212 phosphorylation. J Biol Chem. 2005 Jan 21;280(3):2055-64.

Sample Data



Western blot analysis of extracts from HEK293 cells using PAK1 antibody (lanes 1 and 2) and anti-phospho-PAK1 (Thr212) antibody (lanes 3 and 4).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-phospho-PAK1 (Thr212) antibody.

Anti-phospho-PAK1 (Thr212)

Rabbit Polyclonal Antibody

Catalog Number	P02-65BR
Specific Lot Number	J1178-19
Purification	Affinity chromatography
Stability	1yr at –20°C from date of shipment
Storage & Shipping	Store product at –20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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