

Active Recombinant Human PAK1

Cat. No. PAK1-17H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PAK1KD is a recombinant wild type human PAK1 kinase domain (amino acids 248–545 of full-length human PAK1) expressed in E. coli and purified to near homogeneity. PAK1KD does not have the inhibitory switch domain and has high specific activity.
Species	Human
Source	E.coli
Description	Human PAK1 kinase (UniProt: Q13153; NCBI: NM_002576) belongs to a family of p21-activated kinases. These serine/threonine kinases serve as targets for the small GTP binding proteins Cdc42 and Rac and have been implicated in a wide range of biological activities. PAK1 kinase regulates cell motility and morphology.
Form	1 mg/ml in Storage Buffer of 25 mM Tris-HCl pH 8.0, 150 mM NaCl, 10% glycerol, 5 mM DTT.
Bio-activity	32,638 pmoles/min/μg
Molecular Mass	The calculated mass is 33,646. PAK1KD is fully phosphorylated at T423 and partially phosphorylated at additional sites with measured mass of 33,728 (1P), 33,808 (2P), 33,889 (3P), and 33,968 (4P).
AA Sequence	GPHPSDEEILEKLRSIVSVGDPKKKYTRFEKIGQGASGTVYTAMDVATGQEVAIKQM NLQQQPKKELIINEILVM RENKNPNIVNYLDSYLVGDELWVMEYLAGGSLTDVVTE

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

TCMDEGQIAAVCRECLQALEFLHSNQVIHRDIKSD NILLGMDGSVKLTDFGFCAQIT
PEQSKRSTMVGYTPYWMapevVTRKAYGPKVDIWSLGIMAIEMIEGEPYPYLN NPLR
ALYLIATNGTPELQNPEKLSAIFRDFLNRCLEMDVEKRGSAKELLQHQLKIAKPLSSL
TPLIAAAKEAT KNNH

Applications Enzymatic studies, inhibitor screen, and selectivity profiling

Storage Stable at -70oC for 12 months from date of receipt. Protein should be thawed on ice.
Protein can be flash-frozen in liquid nitrogen and stored at -70oC.

GENE INFORMATION

Gene Name [PAK1 p21 protein \(Cdc42/Rac\)-activated kinase 1 \[Homo sapiens \]](#)

Official Symbol PAK1

Synonyms PAK1; p21 protein (Cdc42/Rac)-activated kinase 1; p21/Cdc42/Rac1 activated kinase 1 (STE20 homolog, yeast) , p21/Cdc42/Rac1 activated kinase 1 (yeast Ste20 related); serine/threonine-protein kinase PAK 1; STE20 homolog; yeast; p65-PAK; alpha-PAK; STE20 homolog, yeast; p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related); p21/Cdc42/Rac1-activated kinase 1 (STE20 homolog, yeast); PAKalpha; MGC130000; MGC130001;

Gene ID [5058](#)

mRNA Refseq [NM_001128620](#)

Protein Refseq [NP_001122092](#)

MIM [602590](#)

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UniProt ID	Q13153
Chromosome Location	11q13-q14
Pathway	Activation of Rac, organism-specific biosystem; Adaptive Immune System, organism-specific biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Angiopoietin receptor Tie2-mediated signaling, organism-specific biosystem; Aurora A signaling, organism-specific biosystem; Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem;
Function	ATP binding; collagen binding; nucleotide binding; protein binding; contributes_to protein binding; protein kinase activity; protein serine/threonine kinase activity;

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