

Recombinant Human P21 Protein (Cdc42/Rac)-Activated Kinase 1, GST-tagged

Cat. No. PAK1-1070 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PAK1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The PAK1 has been activated in vivo.
Species	Human
Source	Sf9 Cells
Description	PAK1 is a member of the p21-activated kinases (PAKs) which have been implicated in the regulation of cell morphology, motility and transformation. These serine/threonine kinases are activated by and are effectors of small GTPases, CDC42 and RAC. PAK1 belongs to the Group I PAKs which also includes PAK2 and PAK3. PAK1 is a key regulator of the actin cytoskeleton, adhesion and cell motility. Inactive dimeric PAK1 is mainly cytosolic and interaction with the activators Cdc42-GTP and Rac1-GTP stimulates the kinase at the sites of cellular protrusions forming adhesions to the extracellular matrix.
Applications	Kinase Assay; Western Blot
Molecular Weight	95kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1mM PMSF, 25% glycerol.

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Specific Activity	74nmol/min/mg
Purity	>95%
Concentration	0.1 ug/ul
Sequences	Full Length
Storage	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	Axon guidance; Chemokine signaling pathway; Epithelial cell signaling in Helicobacter pylori infection; ErbB signaling pathway; Fc gamma R-mediated phagocytosis; Focal adhesion; MAPK signaling pathway; Natural killer cell mediated cytotoxicity; Regulation of actin cytoskeleton; Renal cell carcinoma; T cell receptor signaling pathway; Axon guidance; Signaling in Immune system

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-activated kinase 1; PAKalpha; MGC130000; MGC130001; STE20 homolog, yeast; p21/Cdc42/Rac1-activated kinase 1 (yeast Ste20-related); p21/Cdc42/Rac1-activated kinase 1 (STE20 homolog, yeast); Serine/threonine-protein kinase PAK 1; EC 2.7.11.1; PAK-1; p65-PAK; Alpha-PAK
Gene ID	5058

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mRNA Refseq	NM_001128620
Protein Refseq	NP_001122092
MIM	602590
UniProt ID	Q13153
Chromosome Location	11q13-q14
Function	ATP binding; collagen binding; nucleotide binding; protein serine/threonine kinase activity; transferase activity
PDB rendering based on 1e0a.	

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