Datasheet for ABIN5711245

PAK1 Protein (AA 1-545, full length) (His-SUMO Tag)

1 Image

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Overview

Quantity:	100 µg
Target:	PAK1
Protein Characteristics:	full length, AA 1-545
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PAK1 protein is labelled with His-SUMO Tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	MSNNGLDIQD KPPAPPMRNT STMIGAGSKD AGTLNHGSKP LPPNPEEKKK KDRFYRSILP GDKTNKKKEK ERPEISLPSD FEHTIHVGFD AVTGEFTGMP EQWARLLQTS NITKSEQKKN PQAVLDVLEF YNSKKTSNSQ KYMSFTDKSA EDYNSSNALN VKAVSETPAV PPVSEDEDDD DDDATPPPVI APRPEHTKSV YTRSVIEPLP VTPTRDVATS PISPTENNTT PPDALTRNTE KQKKKPKMSD EEILEKLRSI VSVGDPKKKY TRFEKIGQGA SGTVYTAMDV ATGQEVAIKQ MNLQQQPKKE LIINEILVMR ENKNPNIVNY LDSYLVGDEL WVVMEYLAGG SLTDVVTETC MDEGQIAAVC RECLQALEFL HSNQVIHRDI KSDNILLGMD GSVKLTDFGF CAQITPEQSK RSTMVGTPYW MAPEVVTRKA YGPKVDIWSL GIMAIEMIEG EPPYLNENPL RALYLIATNG TPELQNPEKL SAIFRDFLNR CLEMDVEKRG SAKELLQHQF LKIAKPLSSL TPLIAAAKEA TKNNH
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

Target:	PAK1
Alternative Name:	PAK1 (PAK1 Products)
Background:	Protein kinase involved in intracellular signaling pathways downstream of integrins and receptor-type kinases that plays an important role in cytoskeleton dynamics, in cell adhesion, migration, proliferation, apoptosis, mitosis, and in vesicle-mediated transport processes. Can directly phosphorylate BAD and protects cells against apoptosis. Activated by interaction with CDC42 and RAC1. Functions as GTPase effector that links the Rho-related GTPases CDC42 and RAC1 to the JNK MAP kinase pathway. Phosphorylates and activates MAP2K1, and thereby mediates activation of downstream MAP kinases. Involved in the reorganization of the actin cytoskeleton, actin stress fibers and of focal adhesion complexes. Phosphorylates the tubulin chaperone TBCB and thereby plays a role in the regulation of microtubule biogenesis and organization of the tubulin cytoskeleton. Plays a role in the regulation of insulin secretion in response to elevated glucose levels. Part of a ternary complex that contains PAK1, DVL1 and MUSK that is important for MUSK-dependent regulation of AChR clustering during the formation of the neuromuscular junction (NMJ). Activity is inhibited in cells undergoing apoptosis, potentially due to binding of CDC2L1 and CDC2L2. Phosphorylates MYL9/MLC2. Phosphorylates RAF1 at 'Ser-338' and 'Ser-339' resulting in: activation of RAF1, stimulation of RAF1 translocation to mitochondria, phosphorylation of BAD by RAF1, and RAF1 binding to BCL2. Phosphorylates SNAI1 at 'Ser-246' promoting its transcriptional repressor activity by increasing its accumulation in the nucleus. In podocytes, promotes NR3C2 nuclear localization. Required for atypical chokine receptor ACKR2-induced phosphorylation of LIMK1 and cofilin (CFL1) and for the up-regulation of ACKR2 from endosomal compartment to cell mbrane, increasing its efficiency in chokine uptake and degradation. In synapses, ses to mediate the regulation of F-actin cluster formation performed by SHANK3, maybe through CFL1 phosphorylation and inactivation
Molecular Weight:	76.6 kDa
UniProt:	Q13153
Pathways:	MAPK Signaling, RTK Signaling, TCR Signaling, Fc-epsilon Receptor Signaling Pathway, Intracellular Steroid Hormone Receptor Signaling Pathway, Regulation of Intracellular Steroid Hormone Receptor Signaling, Skeletal Muscle Fiber Development, CXCR4-mediated Signaling Events, Signaling Events mediated by VEGFR1 and VEGFR2, Signaling of Hepatocyte Growth Factor Receptor, Embryonic Body Morphogenesis

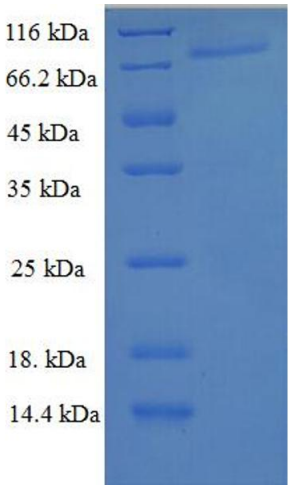
Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.1-2 mg/mL
Buffer:	20 mM Tris-HCl based buffer, pH 8.0
Storage:	-80 °C,4 °C,-20 °C
Storage Comment:	Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



SDS-PAGE

Image 1.