

California Bioscience

Product Datasheet

Product Name	p21 Activated Kinase 4 Human Recombinant
Cata No	CB501429
Source	Escherichia Coli.
Synonyms	PAK-4, p21 (CDKN1A)-Activated Kinase 4, p21-Activated Kinase 4,
	Serine/threonine-protein kinase PAK 4, KIAA1142, PAK4.

Description

PAK4 is part of the group B family of p21-activated kinases (PAK). It's known as an effector protein for cell division cycle 42(Cdc42) and protein that plays an important role in regulating cytoskeletal organization and cell morphology. PAK4 expression is eminent in many cancer cell lines, and is involved in tumorigenesis. PAK proteins are significant effectors that associate Rho GTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins are targets for the small GTP binding proteins Cdc42 and Rac and have been implicated in a wide range of biological activities. PAK4 cooperates specifically with the GTP-bound form of Cdc42Hs and weakly activates the JNK family of MAP kinases. PAK4 is a mediator of filopodia formation and is involved in the reorganization of the actin cytoskeleton. PAK4 activates the JNK pathway. PAK4 phosphorylates and inactivates the protein phosphatase SSH1, leading to increased inhibitory phosphorylation of the actin binding/depolymerizing factor cofilin. Decreased cofilin activity may lead to stabilization of actin filaments.

PAK4 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 628 amino acids (1-591 a.a.) and having a molecular mass of 68.3 kDa.

PAK4 is fused to 37 amino acid His-Tag at N-terminus and is purified by standard chromatography techniques.

Physical Appearance

Sterile filtered colorless solution.

Purity

Greater than 90% as determined by SDS-PAGE.

Formulation

The PAK4 protein contains 50mM Tris-HCl pH-8, 2mM DTT and 10% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid multiple freeze-thaw cycles.

Sequence

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSHMFG KRKKRVEISA PSNFEHRVHT GFDQHEQKFT GLPRQWQSLI EESARRPKPL VDPACITSIQ PGAPKTIVRG SKGAKDGALT LLLDEFENMS VTRSNSLRRD SPPPPARARQ ENGMPEEPAT TARGGPGKAG SRGRFAGHSE AGGGSGDRRR AGPEKRPKSS REGSGGPQES SRDKRPLSGP DVGTPQPAGL ASGAKLAAGR PFNTYPRADT DHPSRGAQGE PHDVAPNGPS AGGLAIPQSS SSSSRPPTRA RGAPSPGVLG PHASEPQLAP PACTPAAPAV PGPPGPRSPQ REPQRVSHEQ FRAALQLVVD PGDPRSYLDN FIKIGEGSTG IVCIATVRSS GKLVAVKKMD LRKQQRRELL FNEVVIMRDY QHENVVEMYN

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SYLVGDELWV VMEFLEGGAL TDIVTHTRMN EEQIAAVCLA VLQALSVLHA QGVIHRDIKS DSILLTHDGR VKLSDFGFCA QVSKEVPRRK SLVGTPYWMA PELISRLPYG PEVDIWSLGI MVIEMVDGEP PYFNEPPLKA MKMIRDNLPP RLKNLHKVSP SLKGFL**PRHANREP IDRESCHEET** AELLKHPFLA KAGPPASIVP LMRQNRTR