83103 Avenue 48, Ste.1B #204 Coachella, CA 92236 USA Phone: +1.6268339877 Email: info@cali-bio.com

## **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 NORMALEN** AELLKHPFLA KAGPPASIVP LMRQNRTR