Datasheet for ABIN3135341

PAK3 Protein (PAK3) (AA 1-559) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PAK3
Protein Characteristics:	AA 1-559
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PAK3 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MSDSLDNEEK PPAPPLRMNS NNRDSSALNH SSKPLPMAPE EKNKKARLRS IFPGGGDKTN KKKEKERPEI SLPSDFEHTI HVGFDAVTGE FTPDLYGSQM CPGKLPEGIP EQWARLLQTS NITKLEQKKN PQAVLDVLKF YDSKETVNNQ KYMSFTSGDK SAHGYIAAHQ SNTKTASEPP LAPPVSEEED EEEEEEEDDN EPPPVIAPRP EHTKSIYTRS VVESIASPAA PNKEDIPPSA ENANSTTLYR NTDRQRKKSK MTDEEILEKL RSIVSVGDPK KKYTRFEKIG QGASGTVYTA LDIATGQEVA IKQMNLQQQP KKELIINEIL VMRENKNPNI VNYLDSYLVG DELWVVMEYL AGGSLTDVVT ETCMDEGQIA AVCRECLQAL DFLHSNQVIH RDIKSDNILL GMDGSVKLTD FGFCAQITPE QSKRSTMVGT PYWMAPEVVT RKAYGPKVDI WSLGIMAIEM VEGEPPYLNE NPLRALYLIA TNGTPELQNP ERLSAVFRDF LNRCLEMDVD RRGSAKELLQ HPFLKLAKPL SSLTPLIIAA KEAIKNSSR **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

Product Details

Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Pak3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	PAK3
Alternative Name:	Pak3 (PAK3 Products)
Background:	Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, or cell cycle regulation. Plays a role in dendrite spine morphogenesis as well as synapse formation and plasticity. Acts as downstream effector of the small GTPases CDC42 and RAC1. Activation by the binding of active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Additionally, phosphorylates TNNI3/troponin I to modulate calcium sensitivity and relaxation kinetics of thin myofilaments. May also be involved in early neuronal development. {ECO:0000269|PubMed:12242269, ECO:0000269|PubMed:15574732, ECO:0000269|PubMed:17537723, ECO:0000269|PubMed:20540949}.
Molecular Weight:	63.4 kDa Including tag.
UniProt:	Q61036

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

Handling

Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process