# abcam

# Product datasheet

# Recombinant Human PAK2 protein ab125597

# 1 Image

**Description** 

Product name Recombinant Human PAK2 protein

Purity > 70 % SDS-PAGE.

Assessed by densitometry. Affinity purified.

**Expression system** Baculovirus infected Sf9 cells

Accession Q13177

Protein length Full length protein

Animal free No

**Nature** Recombinant

**Species** Human

Predicted molecular weight 87 kDa including tags

Amino acids 1 to 524

# **Specifications**

Our Abpromise guarantee covers the use of ab125597 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Liquid

### **Preparation and Storage**

**Stability and Storage** Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.31% Glutathione, 0.002% PMSF, 0.004% DTT, 0.79% Tris HCI, 0.003% EDTA,

25% Glycerol (glycerin, glycerine), 0.29% Sodium chloride

#### **General Info**

**Function** The activated kinase acts on a variety of targets. Phosphorylates ribosomal protein S6, histone

H4 and myelin basic protein. Full length PAK 2 stimulates cell survival and cell growth. The process is, at least in part, mediated by phosphorylation and inhibition of pro-apoptotic BAD.

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Caspase-activated PAK-2p34 is involved in cell death response, probably involving the JNK signaling pathway. Cleaved PAK-2p34 seems to have a higher activity than the CDC42-activated form.

Tissue specificity

Ubiquitously expressed. Higher levels seen in skeletal muscle, ovary, thymus and spleen.

Sequence similarities

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily.

Contains 1 CRIB domain.

Contains 1 protein kinase domain.

Post-translational modifications

Full length PAK 2 is autophosphorylated when activated by CDC42/p21. Following cleavage, both peptides, PAK-2p27 and PAK-2p34, become highly autophosphorylated, with PAK-2p27 being

phosphorylated on serine and PAK-2p34 on threonine residues, respectively.

Autophosphorylation of PAK-2p27 can occur in the absence of any effectors and is dependent on

phosphorylation of Thr-402, because PAK-2p27 is acting as an exogenous substrate.

During apoptosis proteolytically cleaved by caspase-3 or caspase-3-like proteases to yield active

PAK-2p34.

Ubiquitinated, leading to its proteasomal degradation.

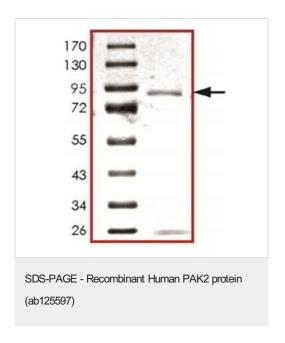
PAK-2p34 is myristoylated.

**Cellular localization** 

Cytoplasm and Nucleus. Cytoplasm > perinuclear region. Membrane. Interaction with ARHGAP10 probably changes PAK-2p34 location to cytoplasmic perinuclear region. Myristoylation changes

PAK-2p34 location to the membrane.

#### **Images**



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