abcam

Product datasheet

Anti-PAK1 antibody ab2551

Overview

Product name	Anti-PAK1 antibody
Description	Rabbit polyclonal to PAK1
Host species	Rabbit
Tested applications	**Suitable for:** IP, WB
Species reactivity	**Reacts with:** Human
Immunogen	E.coli expressed human PAK 1 (amino acids 333-545).
General notes	Human p21-GTPase-activated Protein Kinase 1 (PAK 1) is a functional homolog of STE20 of Saccharomyces cerevisiae. PAK1 is a downstream effector of the Rho-family small GTPases Rac and Cdc42. A serine/threonine kinase, PAK 1 induces the formation of filopodia and lamellipodia in Swiss 3T3 cells. PAK 1 inhibits myosin light chain kinase, and appears to play a role in the regulation of apoptosis by phosphorylating the death agonist Bad. Membrane targeting of PAK 1 induces neurite outgrowth. PAK 1 may also regulate NFkappaB activation.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	PBS pH7.2 with 50% glycerol, 1% BSA and 0.02% sodium azide
Purity	Immunogen affinity purified
Primary antibody notes	Human p21-GTPase-activated Protein Kinase 1 (PAK 1) is a functional homolog of STE20 of Saccharomyces cerevisiae. PAK1 is a downstream effector of the Rho-family small GTPases Rac and Cdc42. A serine/threonine kinase, PAK 1 induces the formation of filopodia and lamellipodia in Swiss 3T3 cells. PAK 1 inhibits myosin light chain kinase, and appears to play a role in the regulation of apoptosis by phosphorylating the death agonist Bad. Membrane targeting of PAK 1 induces neurite outgrowth. PAK 1 may also regulate NFkappaB activation.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab2551 in the following tested applications.

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

Application	Abreviews	Notes
IP		Use a concentration of 10 - 20 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 80 kDa (predicted molecular weight: 61 kDa).

Target

Function	The activated kinase acts on a variety of targets. Likely to be the GTPase effector that links the Rho-related GTPases to the JNK MAP kinase pathway. Activated by CDC42 and RAC1. Involved in dissolution of stress fibers and reorganization of focal complexes. Involved in regulation of microtubule biogenesis through phosphorylation of TBCB. Activity is inhibited in cells undergoing apoptosis, potentially due to binding of CDC2L1 and CDC2L2.
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	Autophosphorylated when activated by CDC42/p21 and RAC1.
Cellular localization	Cytoplasm. Cell junction > focal adhesion. Recruited to focal adhesions upon activation.

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