Datasheet for ABIN500441

anti-PAK2 antibody (N-Term)

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Overview

Quantity:	0.1 mg
Target:	PAK2
Binding Specificity:	N-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PAK2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Enzyme Immunoassay (EIA)

Product Details

Immunogen:	14 amino acid peptide from near the amino terminus of human PAK2
Isotype:	IgG
Specificity:	This antibody detects PAK2 at N-term.
Cross-Reactivity (Details):	Species reactivity (tested):Human, mouse, rat
Purification:	Peptide affinity chromatography

Target Details

Target:	PAK2
Alternative Name:	PAK2 (PAK2 Products)

Target Details

Background:	The p21-activated kinases (PAKs) are serine-threonine kinases that bind to the active forms of Cdc42 and Rac. They are divided into two groups, the first of which include PAK1, 2 and 3, and can be activated by Cdc42/Rac binding. Group 1 PAKs contain an autoinhibitory domain whose activity is regulated by Cdc42/Rac binding. The group 1 PAKs are known to be involved in cellular processes such as gene transcription, apoptosis, and cell morphology and motility. Much less is known about the second group, which includes PAK4, 5 and 6, and are not activated by Cdc42/Rac binding. Of the six PAK proteins, only PAK2 is ubiquitously expressed and cleaved by caspase-3. This cleavage removes the amino-terminal regulatory domain and generates a constitutively active kinase fragment. Recent experiments have shown that following cleavage, the active fragment is myristoylated and directed to the plasma membrane and membrane ruffles where it promotes cell death via increased signaling through the c-Jun N-terminal kinase pathway, but without compromising mitochondrial integrity.Synonyms: Gamma-PAK, PAK 2, PAK gamma, PAK-2, PAK65, Serine/threonine-protein kinase PAK 2, p21-activated kinase 2, p58
Gene ID:	5062
NCBI Accession:	NP_002568
UniProt:	Q13177
Pathways:	MAPK Signaling, RTK Signaling, TCR Signaling, Fc-epsilon Receptor Signaling Pathway, Regulation of Lipid Metabolism by PPARalpha

Application Details

Application Notes:	ELISA. Western blot: 0.5 - 1 µg/mL. Immunohistochemistry on paraffin sections. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Restrictions:	For Research Use only

Handling

Buffer:	PBS containing 0.02 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.

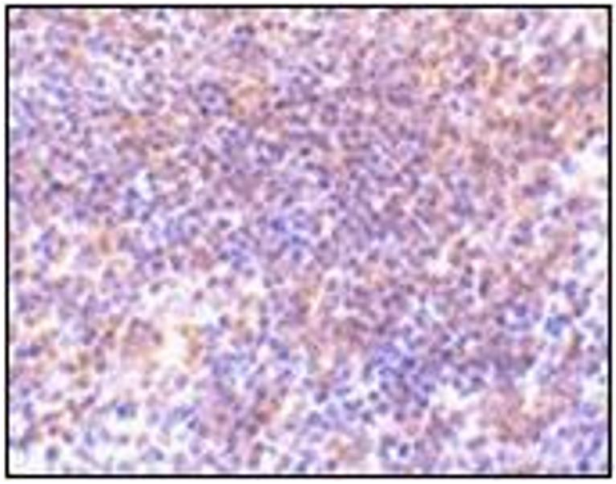
Handling

Storage:	4 °C/-20 °C
Storage Comment:	Store at 2 - 8 °C for up to one month or (in aliquots) at -20 °C for longer.

Publications

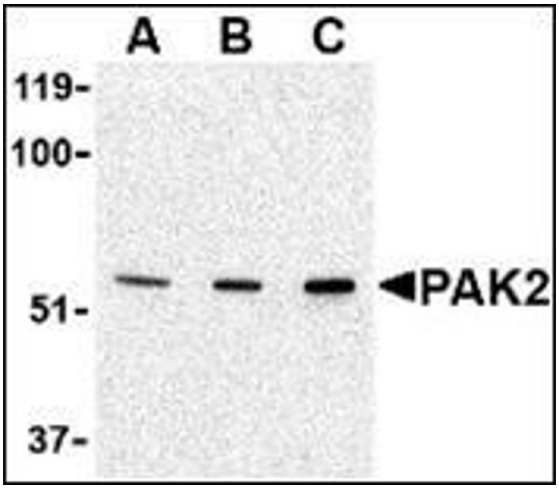
Product cited in:	Choi, Pease, Chen, Zhang, Phee: "P21-activated kinase 2 is essential in maintenance of peripheral Foxp3+ regulatory T cells." in: **Immunology**, Vol. 154, Issue 2, pp. 309-321, (2018) (PubMed). Phee, Au-Yeung, Pryshchep, OHagan, Fairbairn, Radu, Kosoff, Mollenauer, Cheng, Chernoff, Weiss: "Pak2 is required for actin cytoskeleton remodeling, TCR signaling, and normal thymocyte development and maturation." in: **eLife**, Vol. 3, pp. e02270, (2015) (PubMed).

Images



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry of PAK2 in mouse spleen tissue with this product at 10 µg/ml.



Western Blotting

Image 2. Western blot analysis of PAK2 in Jurkat lysate with this product at (A) 0.5, (B) 1 and (C) 2 µg/ml.