

Datasheet for 600-401-DJ3**PAK4 Antibody****Overview**

Description:	Anti-PAK4 (RABBIT) Antibody - 600-401-DJ3
Item No.:	600-401-DJ3
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product 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. These proteins are not activated by Cdc42/Rac binding. PAK4 was initially identified as a novel effector of Cdc42Hs. Co-expression of PAK4 and Cdc42Hs resulted in induction of filopodia and actin polymerization, showing that it is involved in cytoskeletal reorganization. Other experiments have shown PAK4 to be essential for embryonic viability and proper neuronal development. PAK4 has also been implicated in anchorage-independent growth of tumor cells and is required for activation of several cancer prosurvival pathways.

Synonyms:	PAK4 Antibody, KIAA1142, p21-activated kinase 4, PAK-4
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	PAK4
Reactivity:	Human

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-PAK4 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 13 amino acid synthetic peptide from near the internal region of human PAK4.
Purity/Specificity:	Anti-PAK4 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with PAK4 from other sources has not been determined.
Relevant Links:	• UniProtKB - O96013 • GeneID - 10298 • NCBI - NP_005875

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-PAK4 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 64 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:20,000
IF:	20 µg/mL
IHC:	10 µg/mL
WB:	1-2 µg/mL

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

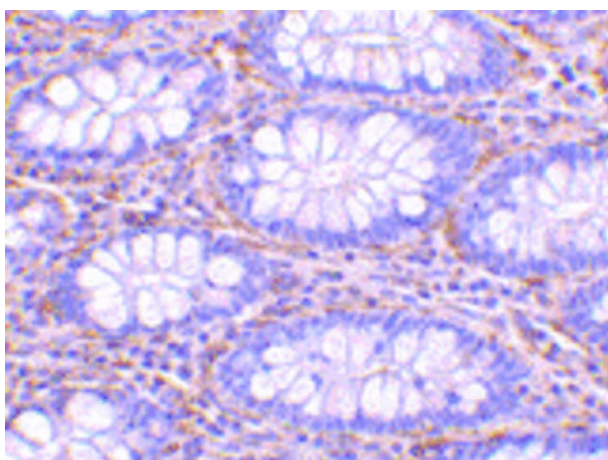
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

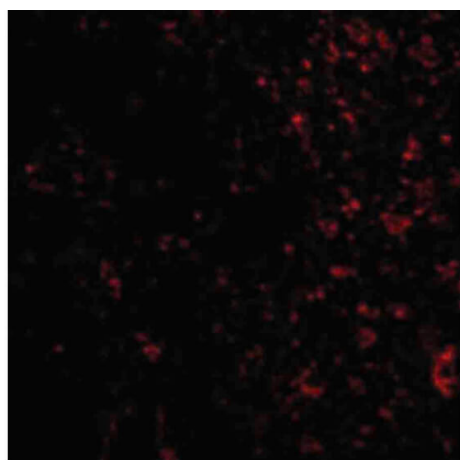
Expiration: Expiration date is one (1) year from date of receipt.

Images



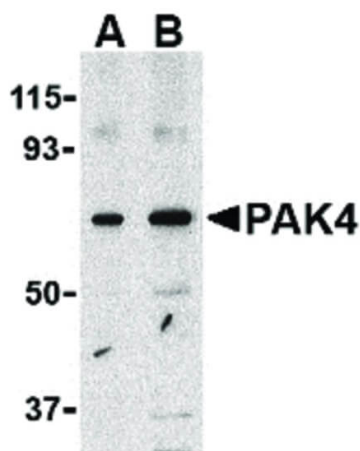
Immunohistochemistry

Immunohistochemistry of PAK4 antibody. Tissue: human colon tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: PAK4 antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PAK4 is cytoplasmic. Staining: PAK4 is stained with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy

Immunofluorescence Microscopy of PAK4 antibody. Cell Type: human colon cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: PAK4 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PAK4 is cytoplasmic. Staining: PAK4 as red fluorescent signal.

**Western Blot**

Western Blot of PAK4 antibody. Lane A: SW480 lysate at 1 µg/ml. Lane B: SW480 lysate at 2 µg/ml. Load: 35 µg per lane. Primary antibody: PAK4 antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 64 kDa, 76kDa for PAK4. Other band(s): PAK4 splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.