

Datasheet: VPA00083

Description:	RABBIT ANTI PAK2
Specificity:	PAK2
Other names:	p21 Activated Kinase 2
Format:	Purified
Product Type:	PrecisionAb Polyclonal
Isotype:	Polyclonal IgG
Quantity:	100 µl

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/1000

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Rabbit polyclonal antibody purified by affinity chromatography.
Buffer Solution	Phosphate buffered saline.
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃).

Immunogen 14 amino acid peptide sequence near the carboxy terminus of human PAK2.

External Database Links

UniProt:

[Q13177](#) [Related reagents](#)

Entrez Gene:

[5062](#) PAK2 [Related reagents](#)

Specificity

Rabbit anti Human PAK2 antibody recognizes p21-activated kinase-2 (PAK2), a ubiquitously expressed, serine/threonine protease found at higher levels in skeletal muscle, ovary, thymus and spleen.

p21-activated kinases (PAKs) bind activated Cdc42 and Rac via a Cdc42/Rac interactive binding (CRIB) domain. Group 1 PAK kinases (PAK1, 2 and 3) regulate the activity of an adjacent conserved autoinhibitory domain and are associated with cellular processes, including cytoskeleton rearrangement, apoptosis and MAP kinase signalling. Group 2 PAKs (PAK4, 5, and 6) lack the autoinhibitory domain and are not activated by Cdc42/Rac binding.

PAK2 has a cytostatic effect on cells and is activated in response to cellular stresses such as hyperosmolarity, serum starvation, contact inhibition and DNA damage from radiation and chemicals. Unlike other PAKs, PAK2 can be activated by proteolytic cleavage to generate a constitutively active fragment, PAK2p34, which induces a cell death response. This induction is thought to be regulated by Rho GTPase-activating protein 10 which inhibits the protein kinase activity of PAK2p34 and causes it to localise to the perinuclear region instead of the nucleus. PAK2 may also play a role in X-linked mental retardation.

Rabbit anti Human PAK2 antibody detects p21-activated kinase-2 as a single band of 58 kDa in a range of human cell line lysates.

Western Blotting

Rabbit anti PAK2 detects a band of approximately 58 kDa in MCF7 cell lysates.

Further Reading

1. Rudel, T. & Bokoch, G.M. (1997) Membrane and morphological changes in apoptotic cells regulated by caspase-mediated activation of PAK2. [Science. 276 \(5318\): 1571-4.](#)
 2. Thome, M. *et al.* (1997) Viral FLICE-inhibitory proteins (FLIPs) prevent apoptosis induced by death receptors. [Nature. 386 \(6624\): 517-21.](#)
 3. Irmeler, M. *et al.* (1997) Inhibition of death receptor signals by cellular FLIP. [Nature. 388 \(6638\): 190-5.](#)
 4. Shu, H.B. *et al.* (1997) Casper is a FADD- and caspase-related inducer of apoptosis. [Immunity. 6 \(6\): 751-63.](#)
 5. Hu, S. *et al.* (1997) I-FLICE, a novel inhibitor of tumor necrosis factor receptor-1- and CD-95-induced apoptosis. [J Biol Chem. 272 \(28\): 17255-7.](#)
 6. Roig, J. & Traugh, J.A. (2001) Cytostatic p21 G protein-activated protein kinase gamma-PAK. [Vitam Horm. 62: 167-98.](#)
 7. Jaffer, Z.M. & Chernoff, J. (2002) p21-activated kinases: three more join the Pak. [Int J Biochem Cell Biol. 34 \(7\): 713-7.](#)
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Storage	Store undiluted at -20°C, avoiding repeated freeze thaw cycles.
Guarantee	12 months from date of despatch.
Acknowledgements	PrecisionAb is a trademark of Bio-Rad Laboratories.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/VPA00083 Antibody (10040)
Regulatory	For research purposes only.

Related Products

Recommended Secondary Antibodies

Goat Anti Rabbit IgG (H/L) (STAR208...) [HRP](#)

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Printed on 15 Sep 2023

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