

## Datasheet: VPA00083

<b>Description:</b>	RABBIT ANTI PAK2
<b>Specificity:</b>	PAK2
<b>Other names:</b>	p21 Activated Kinase 2
<b>Format:</b>	Purified
<b>Product Type:</b>	PrecisionAb Polyclonal
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	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](http://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.**

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

## Stabilisers

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

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## External Database Links

### UniProt:

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

### Entrez Gene:

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

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## 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.

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## Western Blotting

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

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## Further Reading

1. Roig, J. & Traugh, J.A. (2001) Cytostatic p21 G protein-activated protein kinase gamma-PAK. [Vitam Horm. 62: 167-98.](#)
2. 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.](#)
3. Jaffer, Z.M. & Chernoff, J. (2002) p21-activated kinases: three more join the Pak. [Int J Biochem Cell Biol. 34 \(7\): 713-7.](#)
4. Thome, M. *et al.* (1997) Viral FLICE-inhibitory proteins (FLIPs) prevent apoptosis induced by death receptors. [Nature. 386 \(6624\): 517-21.](#)
5. Imler, M. *et al.* (1997) Inhibition of death receptor signals by cellular FLIP. [Nature. 388 \(6638\): 190-5.](#)
6. Shu, H.B. *et al.* (1997) Casper is a FADD- and caspase-related inducer of apoptosis. [Immunity. 6 \(6\): 751-63.](#)
7. 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.](#)

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<b>Storage</b>	Store undiluted at -20°C, avoiding repeated freeze thaw cycles.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	PrecisionAb is a trademark of Bio-Rad Laboratories.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: Antibody (10040): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
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