

## Datasheet: AHP1539

<b>Description:</b>	RABBIT ANTI PAK 1/2/3 (pThr402)
<b>Specificity:</b>	PAK 1/2/3 (pThr402)
<b>Other names:</b>	p21 ACTIVATED PROTEIN KINASE
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	0.1 ml

## 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
Western Blotting (1)	■			1/1000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) **For the detection of phosphoproteins, phosphatase inhibitors should always be added freshly to the lysis buffer. Milk or other casein-based blocking solutions are generally not recommended for blocking; as casein is itself a phosphoprotein its use can result in high background.**

<b>Target Species</b>	Rat
<b>Species Cross Reactivity</b>	Based on sequence similarity, is expected to react with: Mouse, Dog, Human, Bovine <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Antiserum Preparation</b>	Antisera to PAK 1/2/3 (pThr402) were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared from serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns
<b>Buffer Solution</b>	HEPES buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 50% Glycerol
<b>Immunogen</b>	Synthetic phosphopeptide corresponding to amino acid sequence surrounding phosphorylated Thr402 of rat PAK2

**External Database  
Links**

**UniProt:**

[Q62829](#) [Related reagents](#)  
[P35465](#) [Related reagents](#)  
[Q64303](#) [Related reagents](#)

**Entrez Gene:**

[29433](#) Pak3 [Related reagents](#)  
[29431](#) Pak1 [Related reagents](#)  
[29432](#) Pak2 [Related reagents](#)

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**Specificity**

**Rabbit anti Rat PAK 1/2/3 (pThr402) antibody** recognizes p21-activated kinases (PAK) 1, 2 and 3, also known as serine/threonine-protein kinase PAK 1, 2 and 3, when phosphorylated at threonine 402. PAKs are a highly conserved family of serine-threonine protein kinases that interact with small GTPases of the RHO family to re-organise the cytoskeleton.

Alpha-PAK (PAK1) and beta-PAK (PAK3) are mostly expressed in the brain while gamma-PAK (PAK2) is expressed ubiquitously. In mammals, PAKs regulate the MAPK pathways and cytoskeletal organisation by increasing actin and tubulin polymerisation. PAKs also phosphorylate steroid receptors such as the estrogen and progesterone receptors. In humans the loss of function of PAK-3 is associated with nonsyndromic X-linked mental retardation.

PAKs are phosphorylated on multiple residues, Autophosphorylation at threonine 402 has been reported to be critical for activation of PAK kinases. It should be noted that threonine 402 in PAK2 corresponds to threonine 423 in PAK1.

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**Western Blotting**

Rabbit anti Rat PAK 1/2/3 detects a band of approximately 69 kDa in rat hippocampal lysate.

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**Storage**

Store at +4°C or at -20°C if preferred.  
Storage in frost-free freezers is not recommended.  
This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life**

12 months from date of despatch

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**Health And Safety  
Information**

Material Safety Datasheet documentation available at:  
Material Safety Datasheet Documentation #10088 available at:  
<https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)  
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)  
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)  
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)  
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),  
[DyLight®680](#), [DyLight®800](#)

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