

## Datasheet for 600-401-413

**PAK 1/2/3 phospho T423 Antibody****Overview**

<b>Description:</b>	Anti-PAK 1/2/3 pT423 (RABBIT) Antibody - 600-401-413
<b>Item No.:</b>	600-401-413
<b>Size:</b>	100 µg
<b>Applications:</b>	Dot Blot, ELISA
<b>Reactivity:</b>	Human
<b>Host Species:</b>	Rabbit

**Product Details**

<b>Background:</b>	The p21-activated kinases (PAKs) are a family of multifunctional serine/threonine kinases involved in a variety of cell functions including stress response, apoptosis and regulation of cell motility and tumor metastasis. Mammalian PAKs are called 1, 2, 3 or a, g, b respectively. PAKs are part of a large family of kinases where the catalytic domain of the kinase is related to Ste20 kinase of <i>S. cerevisiae</i> . Pak activity is regulated by specific binding of GTP-bound Rac and cdc42 GTPases and also by sphingosine and related lipids. PAK1 activation is induced by a variety of growth factors and G-protein-coupled receptors, Fc receptors, and integrins. This antibody is specific for the phosphorylated form of PAK 1/2/3. The selected peptide sequence used to generate the polyclonal antibody is common to all human PAKs.
<b>Synonyms:</b>	rabbit anti-PAK pT423 antibody, rabbit anti-PAK1/2/3 pT423 antibody, PAK1, PAK-1, PAK 1, Alpha PAK, p21-activated kinase 1, p65-PAK, PAK2, PAK-2, PAK 2, PAK65, S6/H4 kinase, p21-activated kinase 2, p58, Gamma PAK, PAK3, PAK-3, PAK 3, Beta PAK, CDC42/RAC effector kinase PAK-B, p21-activated kinase 3
<b>Host Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG

**Target Details**

<b>Gene Name:</b>	PAK1
<b>Reactivity:</b>	Human

<b>PTM Specificity:</b>	Phosphorylation
<b>Immunogen Type:</b>	Conjugated Peptide
<b>Immunogen:</b>	Human PAK 1/2/3 phospho peptide corresponding to a region of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
<b>Purity/Specificity:</b>	This affinity purified antibody is directed against human PAK (p21-GTPase Activated Protein Kinase). The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. This phospho specific polyclonal antibody is specific for phosphorylated pT423 of Human PAK 1/2/3. Reactivity with non-phosphorylated PAK 1/2/3 is less than 1% by ELISA. Cross reactivity with PAK 1/2/3 from other species has not been determined.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q13153</a></li><li>• <a href="#">NCBI - AAC50590.1</a></li><li>• <a href="#">GeneID - 5058</a></li></ul>

## Application Details

<b>Tested Applications:</b>	Dot Blot, ELISA
<b>Application Note:</b>	This phospho specific polyclonal antibody was tested by Dot blot and ELISA and was found to be reactive with the phosphorylated form of the immunizing peptide and minimally reactive with the non-phosphorylated form of the immunizing peptide. Although not tested, this antibody is likely functional in immunohistochemistry, immunoblotting, and immunoprecipitation. Lysates from Jurkat cells or PAK transfected cells may be used as a control. This product has been assayed against 0.1 µg of phosphorylated peptide in a standard capture ELISA using TMB (3,3',5,5'-Tetramethylbenzidine) code # TMBE-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:5,000 to 1:25,000 is suggested for this product. Less than 0.2% cross-reactivity was detected against the non-phosphorylated form of the immunizing peptide. Researchers should determine optimal titers for other applications.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ELISA:</b>	1:4,000 - 1:20,000
<b>WB:</b>	1:500 - 1:2,000

## Formulation

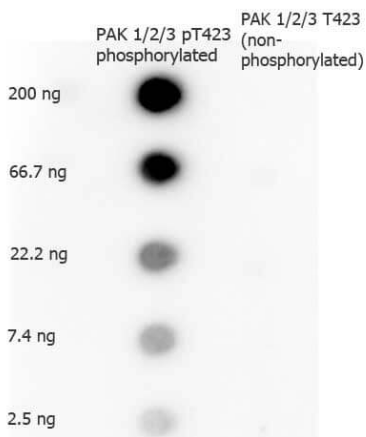
<b>Physical State:</b>	Liquid (sterile filtered)
<b>Concentration:</b>	1.0 mg/mL by UV absorbance at 280 nm

<b>Buffer:</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Preservative:</b>	0.01% (w/v) Sodium Azide
<b>Stabilizer:</b>	None

## Shipping & Handling

<b>Shipping Condition:</b>	Dry Ice
<b>Storage Condition:</b>	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.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images



### Dot Blot

Dot Blot of Rabbit anti-PAK 1/2/3 pT423 antibody. Antigen: phosphorylated and non-phosphorylated forms of the immunizing peptide. Load: 200 ng, 66.7 ng, 22.2 ng, 7.4 ng, or 2.5 ng as indicated. Primary antibody: PAK 1/2/3 pT423 antibody at 1:1,000 overnight at 4°C. Secondary antibody: Dylight™488 rabbit secondary antibody (p/n 611-141-002) at 1:40,000 for 45 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (MB-070) for 60 min at RT.

## References

- Gerassy-Vainberg S et al. A personalized network framework reveals predictive axis of anti-TNF response across diseases. *Cell Rep Med.* (2024)

## Disclaimer

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