

Product Specification Sheet

Product: Affinity Purified anti-Human PAK 1/2/3 pT423 [Rabbit]

Code: 600-401-413

Lot # 12016B

Size: 100 µg

Physical State: Liquid (sterile filtered)

Antibody Concentration: 1.0 mg/ml (by UV absorbance at 280 nm)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Background Information: 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 α , γ , β respectively. PAKs are part of a large family of kinases where the catalytic domain of the kinase is related to Ste20 kinase of *S. cerevisiae*. 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.

Application Note(s): This phospho specific polyclonal antibody was tested by 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.

Recommended Dilution(s): 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.

Storage Conditions: Store vial at -20° C prior to opening. Centrifuge product if not completely clear after standing at room temperature. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening.

Purity and Specificity: 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.

Immunogen: Human PAK 1/2/3 phospho peptide corresponding to a region of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).

Sequence information: P-E-Q-S-K-R-S-(pT)-M-V-G-T-P-Y (aa 413-433 of human PAK1, 408-428 of human PAK2 and 411-431 of human PAK3)

General Reference(s):

DiGiovanna, M.P., Stern, D.F and Roussel (1996) Production of Polyclonal anti-Phosphopeptide Antibodies. *Curr. Prot. Immunol.* **11**; 6.1-6.19.

Note: 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.