

Product datasheet

Anti-PAK1 + PAK2 + PAK3 (phospho T423) antibody
ab2477

3 References 1 Image

Overview

Product name	Anti-PAK1 + PAK2 + PAK3 (phospho T423) antibody
Description	Rabbit polyclonal to PAK1 + PAK2 + PAK3 (phospho T423)
Specificity	This phospho specific polyclonal antibody is specific for phosphorylated Threonine 423 of Human PAK 1 + 2 + 3. Reactivity with non-phosphorylated PAK 1 + 2 + 3 is less than 1% by ELISA.
Tested applications	Suitable for: ELISA, WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide: EQSKRST _p MVGTPY conjugated to KLH, corresponding to amino acids 413-433 of Human PAK 1, 408-428 of human PAK 2 and 411-431 of human PAK 3.

[Run BLAST with](#) [Run BLAST with](#)

General notes

P21-activated kinase (PAK) is actually a family of serine/threonine protein kinases, members of which are activated by small molecular weight GTPases. The three most common isoforms are PAK 1, PAK 2, and PAK 3 (also known as alpha PAK, gamma PAK, and beta PAK, respectively). These kinases contain numerous regulatory elements that trigger diverse signaling processes such as those initiated by activated GTPases, interaction with Src homology 3 (SH3) domains, and caspase mediated proteolytic cleavage. Autophosphorylation of threonine 423 (threonine 402 for PAK 2 and threonine 421 for PAK 3), catalyzed by Cdc42, is required for activation of PAK.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Sodium Azide Constituents: 0.15M Sodium Chloride, 0.02M Potassium Phosphate. pH 7.2
Purity	Immunogen affinity purified
Purification notes	This antibody 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.

Primary antibody notes

P21-activated kinase (PAK) is actually a family of serine/threonine protein kinases, members of which are activated by small molecular weight GTPases. The three most common isoforms are PAK 1, PAK 2, and PAK 3 (also known as alpha PAK, gamma PAK, and beta PAK, respectively). These kinases contain numerous regulatory elements that trigger diverse signaling processes such as those initiated by activated GTPases, interaction with Src homology 3 (SH3) domains, and caspase mediated proteolytic cleavage. Autophosphorylation of threonine 423 (threonine 402 for PAK 2 and threonine 421 for PAK 3), catalyzed by Cdc42, is required for activation of PAK.

Clonality

Polyclonal

Isotype

IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab2477** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		1/4000 - 1/20000.
WB		1/500 - 1/2000. Detects a band of approximately 65 kDa.

Target

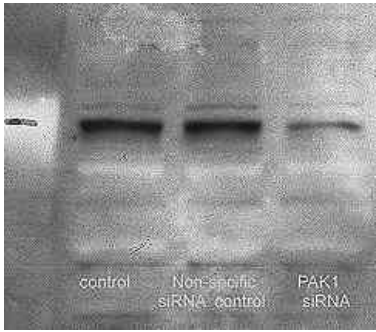
Relevance

In mammals, there are several identified isoforms of p21 Activated Protein Kinases or PAKs: PAK1 and PAK3 are mostly brain specific, while PAK2 is expressed ubiquitously. Mutations of the gene coding for PAK3 are associated with X linked mental retardation and PAK3 is a key regulator of synapse formation and plasticity in the hippocampus. PAK3 is thought to play a key role in regulation of cell shape and motility as well as cell death.

Cellular localization

Cytoplasm. Recruited to focal adhesions upon activation

Images



Western blot probing with PAK1 antibody (ab2477). The major band is at 65 kDa and weaker bands can be detected at 90 and 100 kDa. This picture was kindly submitted by Sue Thomas as part of her review.

Western blot - PAK1 + PAK2 + PAK3 (phospho T423) antibody (ab2477)

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