

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human PAK3 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) PAK1, rhPAK1B, rhPAK2, rhPAK4, rhPAK6, and rhPAK7 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PAK3 Leu138-Gln255 Accession # O75914
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

PAK3 (p21-activated kinase 3; also β-PAK, PAK3b and oligophrenin-3) is a cytoplasmic 68 kDa member of PAK group I, STE20 subfamily, STE Ser/Thr protein kinase family of molecules. It is expressed in neurons of cortical layers II, III and V, the arcuate nucleus, and neurons in the dorsal raphe plus locus coeruleus. PAK3 mediates axon and dendrite arborization, providing volume to the mass of the CNS. It binds to active GTPases which induce PAK autophosphorylation and activation. Human PAK3(b) is 559 amino acids (aa) in length. It contains one GTPase binding domain (aa 68-128) plus a protein kinase catalytic region (aa 283-534). Acetylation occurs on Lys535, and there are at least three potential phosphorylation sites. Alternate splicing generates three isoform variants. There is a 65 kDa short form that shows a deletion of aa 93-107 (PAK3a), a 69 kDa long form that shows a 21 aa substitution for aa 93-107 (PAK3c), and a 72 kDa very long isoform that contains the aforementioned 21 aa "substitution" inserted onto PAK3b after Thr92 (PAK3cb). PAK3b, c and cb are all constitutively active, and show only modest binding affinity towards GTPases. Over aa 138-255, human PAK3(b) shares 94% aa identity with mouse PAK3(b).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.