

Product datasheet for **TA327379**

PAK1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:500-1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human PAK1
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	p21 (RAC1) activated kinase 1
Database Link:	NP_001122092 Entrez Gene 18479 Mouse Entrez Gene 29431 Rat Entrez Gene 5058 Human Q13153



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Background:

The p21-activated kinase (PAK) family of serine/threonine kinases is engaged in multiple cellular processes, including cytoskeletal reorganization, MAPK signaling, apoptotic signaling, control of phagocyte NADPH oxidase, and growth factor-induced neurite outgrowth . Several mechanisms that induce PAK activity have been reported. Binding of Rac/Cdc42 to the CRIB (or PBD) domain near the amino terminus of PAK causes autophosphorylation and conformational changes in PAK . Phosphorylation of PAK1 at Thr423 by PDK induces activation of PAK1 . Several autophosphorylation sites have been identified, including Ser199 and Ser204 of PAK1 and Ser192 and Ser197 of PAK2 . Because the autophosphorylation sites are located in the amino-terminal inhibitory domain, it has been hypothesized that modification in this region prevents the kinase from reverting to an inactive conformation . Research indicates that phosphorylation at Ser144 of PAK1 or Ser139 of PAK3 (located in the kinase inhibitory domain) affects kinase activity . Phosphorylation at Ser21 of PAK1 or Ser20 of PAK2 regulates binding with the adaptor protein Nck . PAK4, PAK5, and PAK6 have lower sequence similarity with PAK1-3 in the amino-terminal regulatory region . Phosphorylation at Ser474 of PAK4, a site analogous to Thr423 of PAK1, may play a pivotal role in regulating the activity and function of PAK4 .

Synonyms:

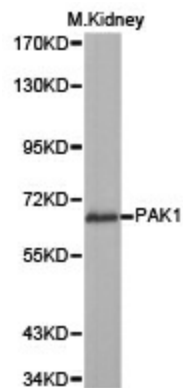
PAKalpha

Protein Families:

Druggable Genome, Protein Kinase, Stem cell - Pluripotency

Protein Pathways:

Axon guidance, Chemokine signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway

Product images:

Western blot analysis of extracts of mouse kidney cell line, using PAK1 antibody.