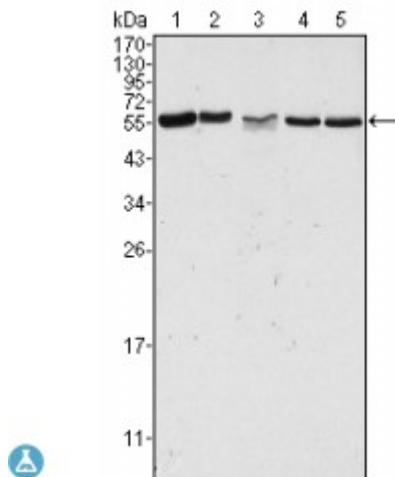


Anti-PA gamma antibody



Description	Mouse monoclonal to PAKgamma.
Model	STJ98304
Host	Mouse
Reactivity	Human, Simian
Applications	ELISA, IF, IHC, WB
Immunogen	Purified recombinant fragment of PAKgamma expressed in E. Coli.
Gene ID	5062
Gene Symbol	PAK2
Dilution range	WB 1:500-1:2000IHC 1:200-1:1000IF 1:200-1:1000ELISA 1:10000
Specificity	PAKgamma Monoclonal Antibody detects endogenous levels of PAKgamma protein.
Tissue Specificity	Ubiquitously expressed. Higher levels seen in skeletal muscle, ovary, thymus and spleen.
Purification	Affinity purification
Clone ID	3B5
Note	For Research Use Only (RUO).
Protein Name	Serine/threonine-protein kinase PAK 2 Gamma-PAK PAK65 S6/H4 kinase p21-activated kinase 2 PAK-2 p58 PAK-2p27 p27 PAK-2p34 p34 C-t-PAK2
Clonality	Monoclonal
Conjugation	Unconjugated

Isotype	IgG1
Formulation	Ascitic fluid containing 0.03% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:8591OMIM:605022
Alternative Names	Serine/threonine-protein kinase PAK 2 Gamma-PAK PAK65 S6/H4 kinase p21-activated kinase 2 PAK-2 p58 PAK-2p27 p27 PAK-2p34 p34 C-t-PAK2
Function	Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell motility, cell cycle progression, apoptosis or proliferation. Acts as downstream effector of the small GTPases CDC42 and RAC1. Activation by the binding of active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Full-length PAK2 stimulates cell survival and cell growth. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Phosphorylates JUN and plays an important role in EGF-induced cell proliferation. Phosphorylates many other substrates including histone H4 to promote assembly of H3.3 and H4 into nucleosomes, BAD, ribosomal protein S6, or MBP. Additionally, associates with ARHGEF7 and GIT1 to perform kinase-independent functions such as spindle orientation control during mitosis. On the other hand, apoptotic stimuli such as DNA damage lead to caspase-mediated cleavage of PAK2, generating PAK-2p34, an active p34 fragment that translocates to the nucleus and promotes cellular apoptosis involving the JNK signaling pathway. Caspase-activated PAK2 phosphorylates MKNK1 and reduces cellular translation.
Cellular Localization	Serine/threonine-protein kinase PAK 2: Cytoplasm. MYO18A mediates the cellular distribution of the PAK2-ARHGEF7-GIT1 complex to the inner surface of the cell membrane.. PAK-2p34: Nucleus. Cytoplasm, perinuclear region. Membrane. Lipid-anchor. Interaction with ARHGAP10 probably changes PAK-2p34 location to cytoplasmic perinuclear region. Myristoylation changes PAK-2p34 location to the membrane.
Post-translational Modifications	Full length PAK2 is autophosphorylated when activated by CDC42/p21. Following cleavage, both peptides, PAK-2p27 and PAK-2p34, become highly autophosphorylated, with PAK-2p27 being phosphorylated on serine and PAK-2p34 on threonine residues, respectively. Autophosphorylation of PAK-2p27 can occur in the absence of any effectors and is dependent on phosphorylation of Thr-402, because PAK-2p27 is acting as an exogenous substrate.; During apoptosis proteolytically cleaved by caspase-3 or caspase-3-like proteases to yield active PAK-2p34.; Ubiquitinated, leading to its proteasomal degradation. PAK-2p34 is myristoylated.