

Product datasheet for **TA384927S**

PAK1 Rabbit Monoclonal Antibody [Clone ID: R08-5I5]

Product data:

| | |
|-------------------------|--|
| Product Type: | Primary Antibodies |
| Clone Name: | R08-5I5 |
| Applications: | IF, IP, WB |
| Recommended Dilution: | WB: 1/1000 ICC/IF: 1/20 IP: 1/20 |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Monoclonal |
| Immunogen: | A synthetic peptide of human PAK1 |
| Formulation: | 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA |
| Concentration: | lot specific |
| Purification: | Affinity Purified |
| Conjugation: | Unconjugated |
| Storage: | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| Stability: | 1 year |
| Predicted Protein Size: | Calculated MW: 61 kDa; Observed MW: 61 kDa |
| Gene Name: | p21 (RAC1) activated kinase 1 |
| Database Link: | Entrez Gene 5058 Human Q13153 |



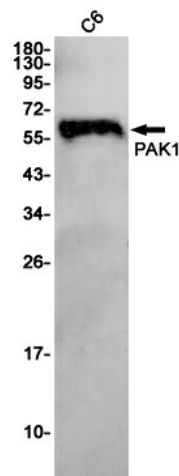
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Background:

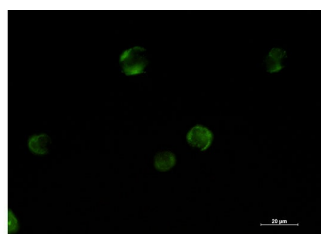
Swiss-Prot Acc.Q13153. Protein kinase involved in intracellular signaling pathways downstream of integrins and receptor-type kinases that plays an important role in cytoskeleton dynamics, in cell adhesion, migration, proliferation, apoptosis, mitosis, and in vesicle-mediated transport processes. Can directly phosphorylate BAD and protects cells against apoptosis. Activated by interaction with CDC42 and RAC1. Functions as GTPase effector that links the Rho-related GTPases CDC42 and RAC1 to the JNK MAP kinase pathway. Phosphorylates and activates MAP2K1, and thereby mediates activation of downstream MAP kinases. Involved in the reorganization of the actin cytoskeleton, actin stress fibers and of focal adhesion complexes. Phosphorylates the tubulin chaperone TBCB and thereby plays a role in the regulation of microtubule biogenesis and organization of the tubulin cytoskeleton. Plays a role in the regulation of insulin secretion in response to elevated glucose levels. Part of a ternary complex that contains PAK1, DVL1 and MUSK that is important for MUSK-dependent regulation of AChR clustering during the formation of the neuromuscular junction (NMJ). Activity is inhibited in cells undergoing apoptosis, potentially due to binding of CDC2L1 and CDC2L2. Phosphorylates MYL9/MLC2. Phosphorylates RAF1 at 'Ser-338' and 'Ser-339' resulting in: activation of RAF1, stimulation of RAF1 translocation to mitochondria, phosphorylation of BAD by RAF1, and RAF1 binding to BCL2. Phosphorylates SNAI1 at 'Ser-246' promoting its transcriptional repressor activity by increasing its accumulation in the nucleus. In podocytes, promotes NR3C2 nuclear localization. Required for atypical chemokine receptor ACKR2-induced phosphorylation of LIMK1 and cofilin (CFL1) and for the up-regulation of ACKR2 from endosomal compartment to cell membrane, increasing its efficiency in chemokine uptake and degradation. In synapses, seems to mediate the regulation of F-actin cluster formation performed by SHANK3, maybe through CFL1 phosphorylation and inactivation. Plays a role in RUFY3-mediated facilitating gastric cancer cells migration and invasion (PubMed:25766321).

Synonyms:

Alpha-PAK; MGC130000; MGC130001; p65-PAK; PAK-1; PAKalpha

Product images:

Western blot analysis of PAK1 in C6 lysates using PAK1 antibody.



Immunocytochemistry analysis of PAK1 (green) in Jurkat using PAK1 antibody, and DAPI (blue).