Recombinant Phospho-PAK1 (Thr212) Monoclonal Antibody

catalog number: AN302100L

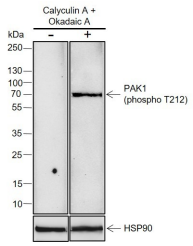
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Human;Mouse
Immunogen	Peptide. This information is proprietary to PTMab
Host	Rabbit
Isotype	IgG, κ
Clone	A824
Purification	Protein A purified
Buffer	PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant.

Applications	Recommended Dilution
WB	1:1000-1:5000

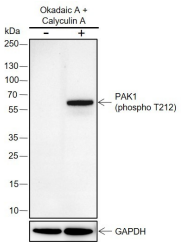
Data



Western Blot with Phospho-PAK1 (Thr212) Monoclonal Antibody at dilution of 1:2000. (-): SH-SY5Y, (+): SH-SY5Y + Calyculin A (200nM, 60min) + Okadaic A(1uM, 60min)

Observed-MW:62 kDa

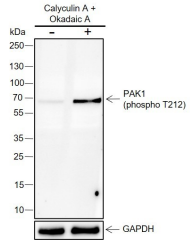
Calculated-MW:61 kDa



Western Blot with Phospho-PAK1 (Thr212) Monoclonal Antibody at dilution of 1:5000. (-): 4T1, (+): 4T1 + Okadaic A (100nM, 60min) + Calyculin A (100nM, 60min)

Observed-MW:62 kDa

Calculated-MW:61 kDa



Western Blot with Phospho-PAK1 (Thr212) Monoclonal Antibody at dilution of 1:1000. (-): NIH-3T3, (+): NIH-3T3 + PDGF (100 ng-mL, 15 min)

Observed-MW:62 kDa

Calculated-MW:61 kDa

Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	Ice bag

Background

Toll-free: 1-888-852-8623
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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, PAK5/7, 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. PAK family members are widely expressed, and often overexpressed in human cancer.

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