PAK1/2 (Ab-199) Antibody

Catalog No: #33172

Package Size: #33172-1 50ul #33172-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

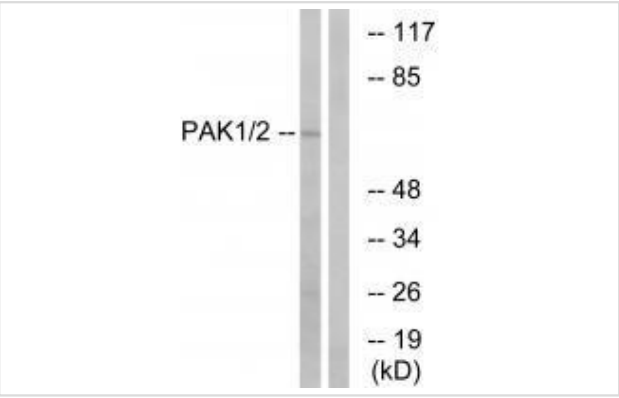
Product Name	PAK1/2 (Ab-199) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous levels of total PAK1/2 protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized non-phosphopeptide derived from human PAK1/2 around the phosphorylation site of serine 199 (T-K-S(p)-V-Y).
Target Name	PAK1/2
Other Names	ADRB2; Alpha-PAK; CDC42/RAC effector kinase PAK-A; EC 2.7.11.1; P65-PAK
Accession No.	Swiss-Prot: Q13153NCBI Gene ID: 5058
Uniprot	Q13153
GeneID	5058;
SDS-PAGE MW	61kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

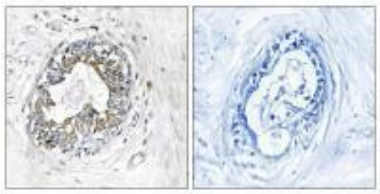
Western blotting: 1:500~1:3000

Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from K562 cells, using PAK1/2 (Ab-199) antibody #33172.



Immunohistochemistry analysis of paraffin-embedded human placenta tissue using PAK1/2 (Ab-199) antibody #33172.

Background

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.

Brown J.L., Curr. Biol. 6:598-605(1996).
Sells M.A., Curr. Biol. 7:202-210(1997).
Manser E., Mol. Cell. Biol. 17:1129-1143(1997)

Note: This product is for in vitro research use only