

ARG44719 anti-PAK4 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes PADI2 / PAD2
Tested Reactivity	Hu
Tested Application	IHC-P, IP, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	PAK4
Species	Human
Conjugation	Un-conjugated
Alternate Names	EC 2.7.11.1; p21-activated kinase 4; Serine/threonine-protein kinase PAK 4; PAK-4

Application Instructions

Application table	Application	Dilution
	IHC-P	5-10 µg/mL
	IP	10 µg/mL
	WB	1-5 µg/mL
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Protein A purification
Buffer	PBS with 0.09% sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	PAK4
Gene Full Name	p21 protein (Cdc42/Rac)-activated kinase 4

Background

The PAK (p21-activated kinase) family of serine/threonine kinases plays an important role in multiple cellular processes, including cytoskeletal reorganization, MAPK signaling, apoptotic signaling, etc. Several mechanisms that induce PAK activation have been reported. Binding of Rac/cdc42 to the CRIB (or PBD) domain at the N-terminal region of PAK causes autophosphorylation and conformational change of PAK. More recently identified members PAK4, PAK5 and PAK6 have lower sequence similarity with PAK1-3 in the regulatory N-terminal region. It has been demonstrated that phosphorylation of serine 474 of PAK4 may play a pivotal role in the activity and function of PAK4 kinase

Function

Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, growth, proliferation or cell survival. Activation by various effectors including growth factor receptors or active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Phosphorylates and inactivates the protein phosphatase SSH1, leading to increased inhibitory phosphorylation of the actin binding/depolymerizing factor cofilin. Decreased cofilin activity may lead to stabilization of actin filaments. Phosphorylates LIMK1, a kinase that also inhibits the activity of cofilin. Phosphorylates integrin beta5/ITGB5 and thus regulates cell motility. Phosphorylates ARHGEF2 and activates the downstream target RHOA that plays a role in the regulation of assembly of focal adhesions and actin stress fibers. Stimulates cell survival by phosphorylating the BCL2 antagonist of cell death BAD. Alternatively, inhibits apoptosis by preventing caspase-8 binding to death domain receptors in a kinase independent manner. Plays a role in cell-cycle progression by controlling levels of the cell-cycle regulatory protein CDKN1A and by phosphorylating RAN. [UniProt]