

KAPC A/B Antibody

Catalog No: #33696

Package Size: #33696-1 50ul #33696-2 100ul

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

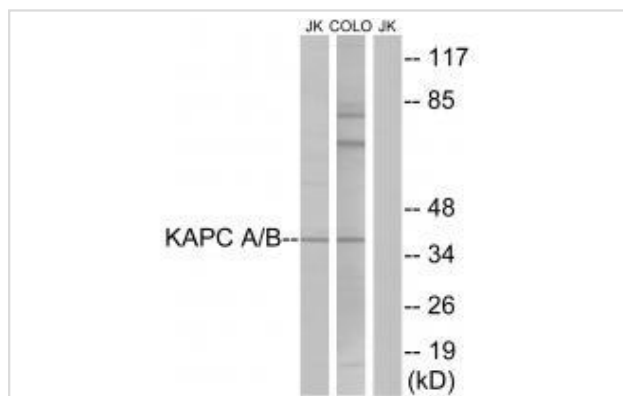
Description

Product Name	KAPC A/B Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous levels of total KAPC A/B protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from N-terminal of human KAPC A/B.
Target Name	KAPC A/B
Other Names	EC 2.7.11.11; KAPCA; PKA C-alpha; PKA-alpha; PKACA
Accession No.	Swiss-Prot: P17612NCBI Gene ID: 5566/5567
Uniprot	P17612
GeneID	5566;
SDS-PAGE MW	38kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), 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

Images



Western blot analysis of extracts from Jurkat cells and COLO cells, using KAPC A/B antibody #33696.

Background

Phosphorylates a large number of substrates in the cytoplasm and the nucleus. Regulates the abundance of compartmentalized pools of its regulatory subunits through phosphorylation of PJA2 which binds and ubiquitinates these subunits, leading to their subsequent proteolysis. Phosphorylates CDC25B, ABL1, NFKB1, CLDN3, PSMC5/RPT6, PJA2, RYR2, RORA and VASP. RORA is activated by phosphorylation. Required for glucose-mediated adipogenic differentiation increase and osteogenic differentiation inhibition from osteoblasts. Involved in the regulation of platelets in response to thrombin and collagen; maintains circulating platelets in a resting state by phosphorylating proteins in numerous platelet inhibitory pathways when in complex with NF-kappa-B (NFKB1 and NFKB2) and I-kappa-B-alpha (NFKBIA), but thrombin and collagen disrupt these complexes and free active PRKACA stimulates platelets and leads to platelet aggregation by phosphorylating VASP. Prevents the antiproliferative and anti-invasive effects of alpha-difluoromethylornithine in breast cancer cells when activated. RYR2 channel activity is potentiated by phosphorylation in presence of luminal Ca²⁺, leading to reduced amplitude and increased frequency of store overload-induced Ca²⁺ release (SOICR) characterized by an increased rate of Ca²⁺ release and propagation velocity of spontaneous Ca²⁺ waves, despite reduced wave amplitude and resting cytosolic Ca²⁺. PSMC5/RPT6 activation by phosphorylation stimulates proteasome. Negatively regulates tight junctions (TJs) in ovarian cancer cells via CLDN3 phosphorylation. NFKB1 phosphorylation promotes NF-kappa-B p50-p50 DNA binding. Involved in embryonic development by down-regulating the Hedgehog (Hh) signaling pathway that determines embryo pattern formation and morphogenesis. Prevents meiosis resumption in prophase-arrested oocytes via CDC25B inactivation by phosphorylation. May also regulate rapid eye movement (REM) sleep in the pedunculopontine tegmental (PPT). Phosphorylates APOBEC3G and AICDA. Isoform 2 phosphorylates and activates ABL1 in sperm flagellum to promote spermatozoa capacitation. Maldonado F., Nucleic Acids Res. 16:8189-8190(1988). Desseyn J.-L., Proc. Natl. Acad. Sci. U.S.A. 97:6433-6438(2000). Ficarro S., J. Biol. Chem. 278:11579-11589(2003).

Note: This product is for in vitro research use only