

**产品名称: cAMP Protein Kinase Catalytic Subunit Rabbit
Monoclonal Antibody**
产品货号: AMRe04058



产品概述 (Summary)

产品名称 (Production Name)	cAMP Protein Kinase Catalytic Subunit Rabbit Monoclonal Antibody
描述 (Description)	Recombinant rabbit monoclonal antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,IP
种属反应性 (Reactivity)	Human,Mouse,Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% protective protein
纯化方式 (Purification)	Affinity Purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	PRKACA
别名 (Alternative Names)	PKACA; PPNAD4
基因 ID (Gene ID)	5566
蛋白 ID (SwissProt ID)	P17612.

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:1000,IHC 1:50-1:100,ICC/IF 1:50-1:200,IP 1:20-1:50
蛋白分子量 (Molecular Weight)	Calculated MW: 41 kDa; Observed MW: 41 kDa

研究背景 (Background)

**产品名称: cAMP Protein Kinase Catalytic Subunit Rabbit
Monoclonal Antibody**
产品货号: AMRe04058

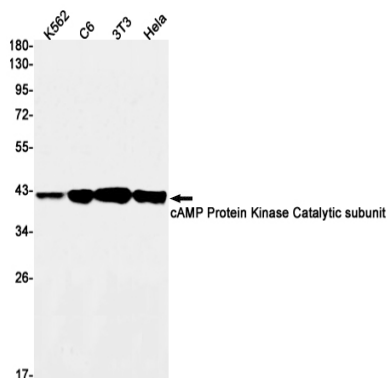


Phosphorylates a large number of substrates in the cytoplasm and the nucleus. Regulates the abundance of compartmentalized pools of its regulatory subunits through phosphorylation of PJA2 which binds and ubiquitinates these subunits, leading to their subsequent proteolysis. Phosphorylates CDC25B, ABL1, 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 pedunculo pontine tegmental (PPT). Phosphorylates APOBEC3G and AICDA. Isoform 2 phosphorylates and activates ABL1 in sperm flagellum to promote spermatozoa capacitation. Phosphorylates HSF1; this phosphorylation promotes HSF1 nuclear localization and transcriptional activity upon heat shock (PubMed:21085490).

研究领域 (Research Area)

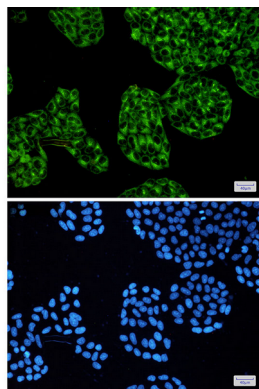
Signal Transduction

图片 (Image Data)

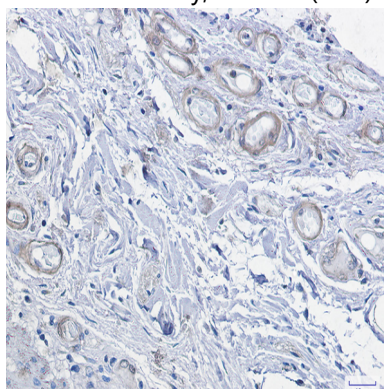


Western blot analysis of cAMP Protein Kinase Catalytic subunit in K562, C6, 3T3, HeLa lysates using cAMP Protein Kinase Catalytic Subunit antibody.

产品名称: cAMP Protein Kinase Catalytic Subunit Rabbit
Monoclonal Antibody
产品货号: AMRe04058



Immunocytochemistry analysis of cAMP Protein Kinase Catalytic subunit (green) in HeLa using cAMP Protein Kinase Catalytic subunit antibody, and DAPI (blue)



Immunohistochemistry analysis of paraffin-embedded Human colon cancer using cAMP Protein Kinase Catalytic subunit antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

注意事项 (Note)

For research use only .