Best Tools for immunology Research

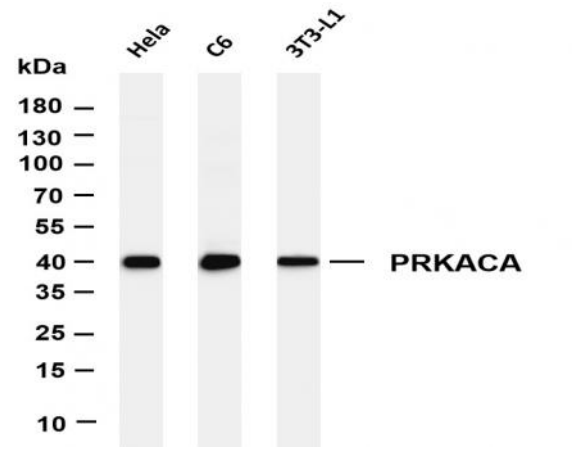
PRKACA (PT0438R) PT® Rabbit mAb

Catalog No :	YM8278
Reactivity :	Human; Mouse; Rat;
Applications :	WB;IHC;IF;IP;ELISA
Target :	PKA
Fields :	>>Endocrine resistance;>>MAPK signaling pathway;>>Ras signaling pathway;>>Calcium signaling pathway;>>cAMP signaling pathway;>>Chemokine signaling pathway;>>Oocyte meiosis;>>Autophagy - animal;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Adrenergic signaling in cardiomyocytes;>>Vascular smooth muscle contraction;>>Wnt signaling pathway;>>Hedgehog signaling pathway;>>Apelin signaling pathway;>>Tight junction;>>Gap junction;>>Platelet activation;>>Circadian entrainment;>>Thermogenesis;>>Long-term potentiation;>>Retrograde endocannabinoid signaling;>>Glutamatergic synapse;>>Cholinergic synapse;>>Serotonergic synapse;>>GABAergic synapse;>>Dopaminergic synapse;>>Olfactory transduction;>>Taste transduction;>>Inflammatory mediator regulation of TRP channels;>>Insulin signaling pathway;>>Insulin secretion;>>GnRH signaling pathway;>>Ovarian steroidogenesis;>>Progesterone-mediated oocyte maturation;>>Estrogen signaling pathway;>>Melanogenesis;>>Thyroid hormo
Gene Name :	PRKACA
Protein Name :	cAMP-dependent protein kinase catalytic subunit alpha
Human Gene Id :	5566
Human Swiss Prot No :	P17612
Mouse Gene Id :	18747
Mouse Swiss Prot No :	P05132
Rat Swiss Prot No :	P27791
Specificity :	endogenous

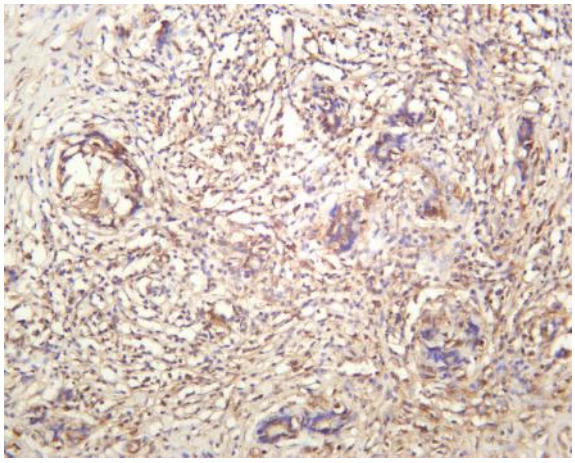
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, rabbit, IgG, Kappa
Dilution :	IHC 1:2000-1:10000;WB 1:1000-1:5000;IF 1:200-1:1000;ELISA 1:5000-1:20000;IP 1:50-1:200;
Purification :	Protein A
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	40kD
Observed Band :	40kD
Cell Pathway :	MAPK_ERK_Growth;MAPK_G_Protein;Calcium;Chemokine;Oocyte meiosis;Apoptosis_Inhibition;Apoptosis_Mitochondrial;Apoptosis_Overview;Vascular smooth muscle contraction;WNT;WNT-T CELLHedgehog;Gap junction;L
Background :	This gene encodes one of the catalytic subunits of protein kinase A, which exists as a tetrameric holoenzyme with two regulatory subunits and two catalytic subunits, in its inactive form. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. cAMP-dependent phosphorylation of proteins by protein kinase A is important to many cellular processes, including differentiation, proliferation, and apoptosis. Constitutive activation of this gene caused either by somatic mutations, or genomic duplications of regions that include this gene, have been associated with hyperplasias and adenomas of the adrenal cortex and are linked to corticotropin-independent Cushing's syndrome. Altern
Function :	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Activated by cAMP.,function:Phosphorylates a large number of substrates in the cytoplasm and the nucleus.,PTM:Asn-3 is partially deaminated to Asp giving rise to 2 major isoelectric variants, called CB and CA respectively.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. cAMP subfamily.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 protein kinase domain.,subcellular location:Translocates into the nucleus (monomeric catalytic subunit) (By similarity). The inactive holoenzyme is found in the cytoplasm.,subunit:A number of inactive tetrameric holoenzymes are produced by the combination of homo- or heterodimers of the different regulatory subunits associated with two catalytic subunits. cAMP ca
	Cytoplasm, Membrane

Expression : Isoform 1 is ubiquitous. Isoform 2 is sperm-specific and is enriched in pachytene spermatocytes but is not detected in round spermatids.
Location :

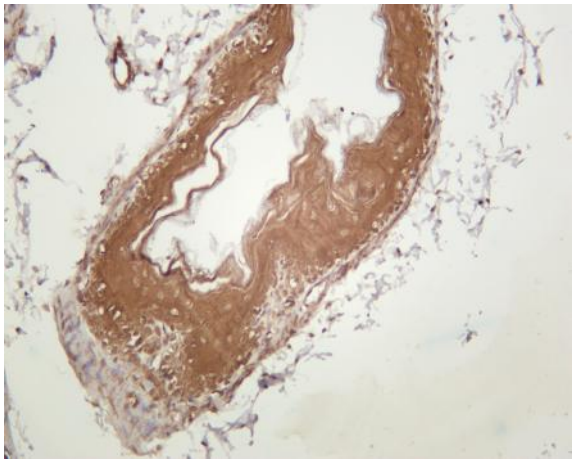
Products Images



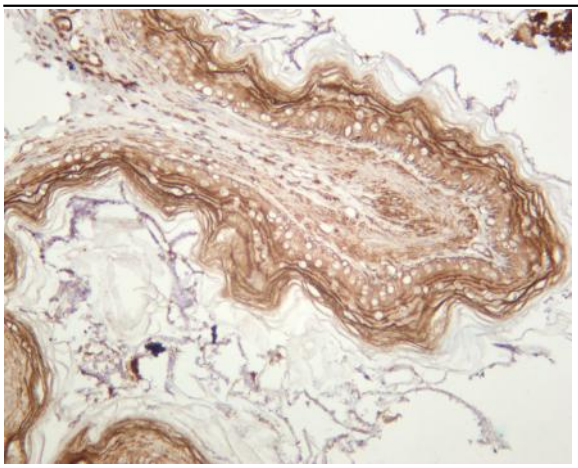
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PRKACA (PT0438R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: C6 Lane 3: 3T3-L1 Predicted band size: 40kDa Observed band size: 40kDa



Human thyroid carcinoma was stained with anti-PRKACA (PT0438R) rabbit antibody



Mouse stomach was stained with anti-PRKACA (PT0438R) rabbit antibody



Rat stomach was stained with anti-PRKACA (PT0438R) rabbit antibody