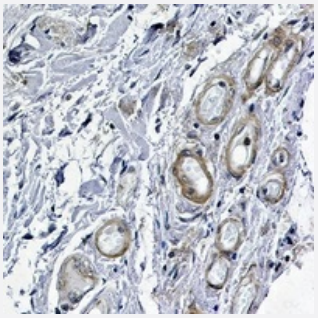
RecomAb™ Sm Size

PRKACA recombinant monoclonal antibody

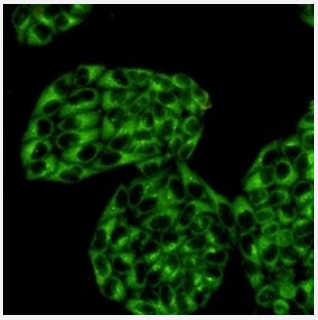
Catalog # RAB09145 Size 50 uL

Applications



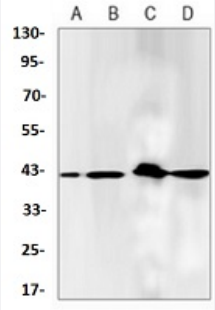
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of human colon cancer formalin fixed paraffin embedded tissue section using PKA C alpha recombinant monoclonal antibody (Cat # RAB09145). The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.54). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescence

Immunofluorescent analysis of HeLa cells with PKA C alpha recombinant monoclonal antibody (Cat # RAB09145). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.



Western Blot (Cell lysate)

Western blot analysis of K562 (A), C6 (B), NIH3T3 (C), Hela (D) whole cell lysates with PKA C alpha recombinant monoclonal antibody (Cat # RAB09145).

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Specification

Product Description	Rabbit recombinant monoclonal antibody raised against huamn PRKACA.
Antibody Species	Rabbit
Immunogen	Original antibody is raised against a synthetic peptide of human cAMP Protein Kinase Catalytic subu nit.
Theoretical MW (kDa)	42
Reactivity	Human, Mouse, Rat
Specificity	Recognizes endogenous levels of PKA C alpha protein.
Form	Liquid
Preparation Method	Mammalian cell (HEK293) expression system
Purification	Immunogen affinity chromatography
Isotype	IgG
Recommend Usage	Immunocytochemistry (1:50-1:100) Immunofluorescence (1:50-1:100) Immunohistochemistry (1:50-1:100) Immunoprecipitation(1:10-1:50) Western Blot (1:500-1:1000) The optimal working dilution should be determined by the end user.
Storage Buffer	In 50mM Tris-Glycine, pH 7.4 (0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA)
Storage Instruction	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

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- Immunofluorescence

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- Western Blot (Cell lysate)

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Gene Info — PRKACA

Entrez GeneID	5566
Protein Accession#	P17612
Gene Name	PRKACA
Gene Alias	MGC102831, MGC48865, PKACA
Gene Description	protein kinase, cAMP-dependent, catalytic, alpha
Omim ID	601639
Gene Ontology	Hyperlink
Gene Summary	cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. 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. The protein encoded by this gene is a member of the Ser/Thr protein kinase family and is a catalytic subunit of cAMP-dependent protein kinase. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq
Other Designations	PKA C-alpha|cAMP-dependent protein kinase catalytic subunit alpha|cAMP-dependent protein kinase catalytic subunit alpha, isoform 1|protein kinase A catalytic subunit

Pathway

- Apoptosis
- Calcium signaling pathway

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- Chemokine signaling pathway
- Gap junction
- GnRH signaling pathway
- Hedgehog signaling pathway
- Insulin signaling pathway
- Long-term potentiation
- MAPK signaling pathway
- Melanogenesis
- Olfactory transduction
- Prion diseases
- Taste transduction
- Vascular smooth muscle contraction
- Vibrio cholerae infection
- Wnt signaling pathway

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