

# [KO Validated] PKA C-alpha (PRKACA) Mouse mAb

Catalog No.: A18603 **KO Validated** **2 Publications**

## Basic Information

### Observed MW

40kDa

### Calculated MW

41kDa

### Category

Primary antibody

### Applications

WB,IF/ICC,ELISA

### Cross-Reactivity

Human, Mouse, Rat

## 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. Alternative splicing results in multiple transcript variants encoding different isoforms. Tissue-specific isoforms that differ at the N-terminus have been described, and these isoforms may differ in the post-translational modifications that occur at the N-terminus of some isoforms.

## Recommended Dilutions

**WB** 1:10000 - 1:40000

**IF/ICC** 1:50 - 1:200

**ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

## Immunogen Information

### Gene ID

5566

### Swiss Prot

P17612

### Immunogen

Recombinant protein of human [KD Validated] PKA C-alpha (PRKACA).

### Synonyms

CAFD1; PKACA; PPNAD4; A)

## Contact

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## Product Information

### Source

Mouse

### Isotype

IgG2B,Kappa

### Purification

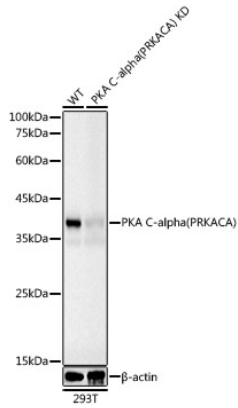
Affinity purification

### Storage

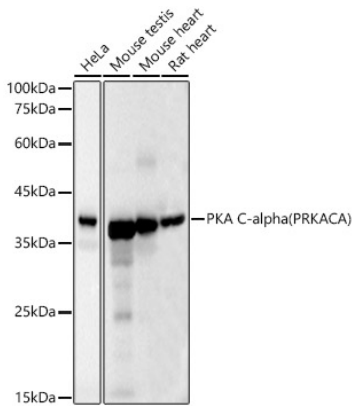
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.

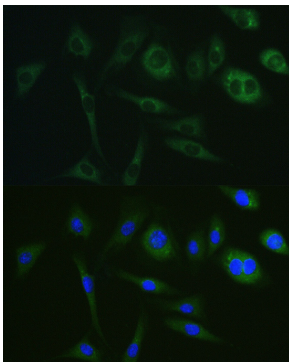
## Validation Data



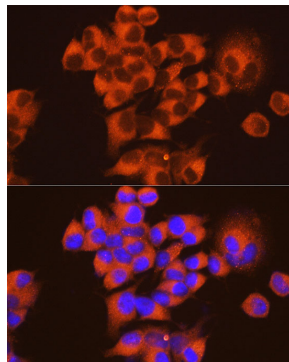
Western blot analysis of lysates from wild type (WT) and PKA C-alpha (PRKACA) knockdown (KD) 293T (KD) cells, using [KO Validated] PKA C-alpha (PRKACA) Mouse mAb (A18603) at 1:10000 dilution. Secondary antibody: HRP-conjugated Goat anti-Mouse IgG (H+L) (AS003) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 20s.



Western blot analysis of various lysates, using [KO Validated] PKA C-alpha (PRKACA) Mouse mAb (A18603) at 1:10000 dilution. Secondary antibody: HRP-conjugated Goat anti-Mouse IgG (H+L) (AS003) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 20s.



Immunofluorescence analysis of BALB-3T3 cells using [KD Validated] PKA C-alpha (PRKACA) Mouse mAb (A18603) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of MCF7 cells using [KD Validated] PKA C-alpha (PRKACA) Mouse mAb (A18603) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.