Product Name: KD-Validated cAMP Protein Kinase Catalytic Subunit Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00188
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 40.6kDa

Antigen Information

Gene Name	PRKACA
Alternative Names	Protein Kinase; CAMP-Dependent; Catalytic; Alpha; CAMP-Dependent Protein Kinase Catalytic Subunit Alpha; PKACA; Protein Kinase A Catalytic Subunit; PKA C-Alpha; EC 2.7.11; EC 2.7.11.11
Gene ID	5566.0
SwissProt ID	P17612
Immunogen	A synthesized peptide derived from human cAMP Protein Kinase Catalytic subunit

Background

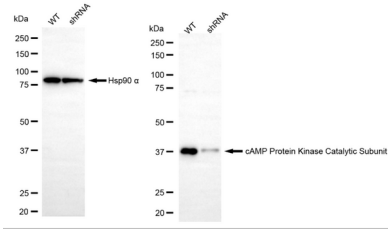
This gene encodes one of the catalytic subunits of protein kinase A, which exists as a tetrameric holoenzyme with two

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. [provided by RefSeq, Jan 2015]

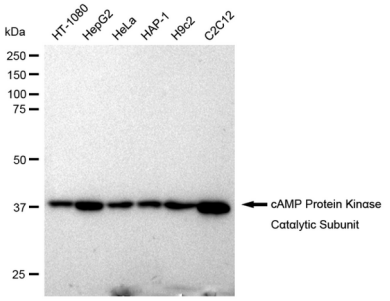
Research Area

Signal Transduction,Cancer,Metabolism

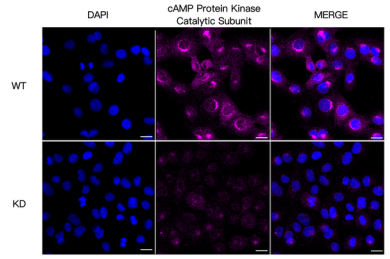
Image Data



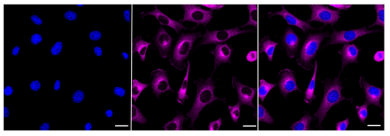
Western blotting analysis using cAMP Protein Kinase Catalytic Subunit antibody (KVAb00188). cAMP Protein Kinase Catalytic Subunit expression in wild type (WT) and cAMP Protein Kinase Catalytic Subunit shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates . Hsp90 α serves as a loading control. The blot was incubated with cAMP Protein Kinase Catalytic Subunit antibody (KVAb00188, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



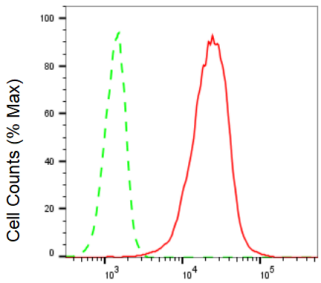
Western blotting analysis using cAMP Protein Kinase Catalytic Subunit antibody (KVAb00188). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with cAMP Protein Kinase Catalytic Subunit antibody (KVAb00188, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HT-1080 cells using cAMP Protein Kinase Catalytic Subunit antibody (KVAb00188, 1:1,000), Top panel: wild-type (WT); Bottom panal: cAMP Protein Kinase Catalytic Subunit shRNA knockdown (KD). Nuclei were stained blue with DAPI; cAMP Protein Kinase Catalytic Subunit was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HeLa cells with cAMP Protein Kinase Catalytic Subunit antibody (KVAb00188, 1:1,000). Nuclei were stained blue with DAPI; cAMP Protein Kinase Catalytic Subunit was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



Flow cytometric analysis of cAMP Protein Kinase Catalytic Subunit expression in C2C12 cells using cAMP Protein Kinase Catalytic Subunit antibody (KVAb00188, 1:2,000). Green, isotype control; red, cAMP Protein Kinase Catalytic Subunit.