

Product Name: KD-Validated Protein Kinase C Alpha Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA00780

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
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; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 76.8kDa

Antigen Information

Gene Name	PRKCA PRKCA; Protein Kinase C Alpha; PKCA; Protein Kinase C Alpha Type; EC 2.7.11.13; PKC-Alpha;
Alternative Names	PRKACA; PKC-A; Protein Kinase C, Alpha; Aging-Associated Gene 6; EC 2.7.11; PKCalpha; PKCI+/-; PKCα; AAG6
Gene ID	5578.0
SwissProt ID	P17252
Immunogen	A synthesized peptide derived from human PKC alpha

Background

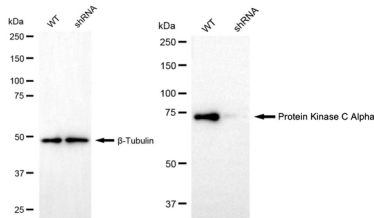
Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the

second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role in cells. The protein encoded by this gene is one of the PKC family members. This kinase has been reported to play roles in many different cellular processes, such as cell adhesion, cell transformation, cell cycle checkpoint, and cell volume control. Knockout studies in mice suggest that this kinase may be a fundamental regulator of cardiac contractility and Ca^{2+} handling in myocytes. [provided by RefSeq, Jul 2008]

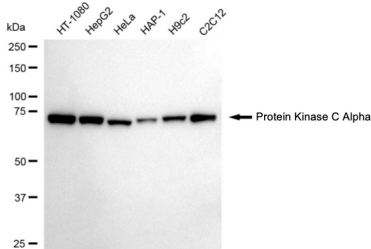
Research Area

Signal Transduction,Cancer,Cardiovascular,Neuroscience

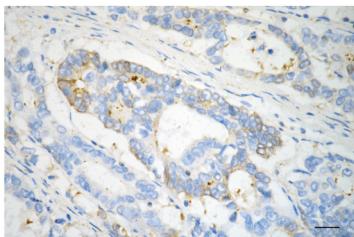
Image Data



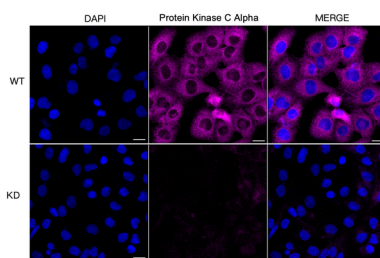
Western blotting analysis using protein kinase c alpha antibody (KVA00780). Protein kinase c alpha expression in wild type (WT) and protein kinase c alpha (PRKCA) shRNA knockdown (KD) HT-1080 cells with 20 μg of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with protein kinase c alpha antibody (KVA00780, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



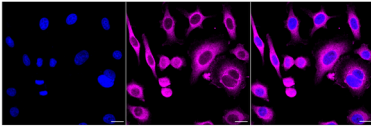
Western blotting analysis using protein kinase c alpha antibody (KVA00780). Total cell lysates (30 μg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with protein kinase c alpha antibody (KVA00780, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



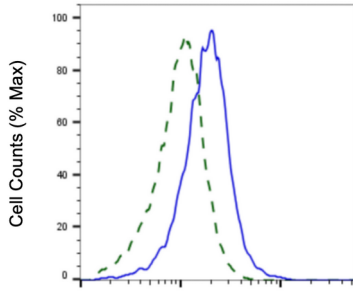
Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using protein kinase c alpha antibody (KVA00780, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40 $\times$ objective). Scale bar: 25 μm .



Immunocytochemical staining of HT-1080 cells using protein kinase c alpha antibody (KVA00780, 1:1,000), Top panel: wild-type (WT); Bottom panel: Protein kinase c alpha shRNA knockdown (KD). Nuclei were stained blue with DAPI; Protein kinase c alpha was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm .

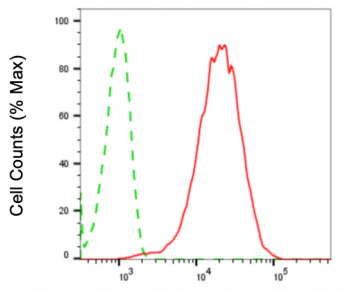


Immunocytochemical staining of HepG2 cells with protein kinase c alpha antibody(KVAb00780, 1:1000) . Nuclei were stained blue with DAPI; Protein kinase c alpha was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μ m.



Protein Kinase C Alpha-Alexa Fluor® 647

Validation of protein kinase c alpha knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HT-1080 cells were stained with protein kinase c alpha antibody (KVAb00780, 1:2,000) and analyzed using BD flow cytometer.



Protein Kinase C Alpha-Alexa Fluor® 647

Flow cytometric analysis of protein kinase c alpha expression in HepG2 cells using protein kinase c alpha antibody (KVAb00780, 1:2,000). Green, isotype control; red, Protein kinase c alpha.