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|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product name:</b>     | PKC $\alpha$ (phospho Thr638) Rabbit Polyclonal Antibody                                                                                        |
| <b>Cat number:</b>       | ABN05255                                                                                                                                        |
| <b>Conjugate:</b>        | Unconjugated                                                                                                                                    |
| <b>Size:</b>             | 100 $\mu$ L                                                                                                                                     |
| <b>Clone:</b>            | Polyclonal                                                                                                                                      |
| <b>Concentration:</b>    | 1mg/ml                                                                                                                                          |
| <b>Host:</b>             | Rabbit                                                                                                                                          |
| <b>Isotype:</b>          | IgG                                                                                                                                             |
| <b>Immunogen:</b>        | The antiserum was produced against synthesized peptide derived from human PKC alpha around the phosphorylation site of Thr638. AA range:606-655 |
| <b>Reactivity:</b>       | Human,Mouse,Rat                                                                                                                                 |
| <b>Applications:</b>     | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000                                                                         |
| <b>Molecular Weight:</b> | 76kDa                                                                                                                                           |
| <b>Purification:</b>     | Affinity purification                                                                                                                           |
| <b>Form:</b>             | Liquid                                                                                                                                          |
| <b>Buffer:</b>           | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.                                                              |
| <b>Storage:</b>          | Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.                                                    |

**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  $\text{Ca}^{2+}$  handling in myocytes. [provided by RefSeq, Jul 2013]  
catalytic activity:  $\text{ATP} + \text{a protein} = \text{ADP} + \text{a phosphoprotein}$ ., cofactor: Binds 3 calcium ions per subunit. The ions are bound to the C2 domain., function: PKC is activated by diacylglycerol which in turn phosphorylates a range of cellular proteins. PKC also serves as the receptor for phorbol esters, a class of tumor promoters., function: This is a calcium-activated, phospholipid-dependent, serine- and threonine-specific enzyme. May play a role in cell motility by phosphorylating CSPG4., similarity: Belongs to the protein kinase superfamily., similarity: Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily., similarity: Contains 1 AGC-kinase C-terminal domain., similarity: Contains 1 C2 domain., similarity: Contains 1 protein kinase domain., similarity: Contains 2 phorbol-ester/DAG-type zinc fingers., subunit: Interacts with ADAP1/CENTA1, CSPG4 and PRKCABP. Binds to SDPR in the presence of phosphatidylserine.,