

Phospho-PKC Delta (Ser645) Recombinant monoclonal antibody

Catalog Number: 87213-1-RR

Basic Information

Catalog Number:

87213-1-RR

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_006254

GeneID (NCBI):

5580

UNIPROT ID:

Q05655

Full Name:

protein kinase C, delta

Calculated MW:

78 kDa

Observed MW:

78 kDa

Purification Method:

Protein A purification

CloneNo.:

252421F11

Recommended Dilutions:

WB: 1:500-1:2000

FC (Intra): 0.13 ug per 10⁶ cells in a
100 µl suspension

Applications

Tested Applications:

WB, FC (Intra), ELISA

Species Specificity:

human

Positive Controls:

WB: A549 cells, HeLa cells

FC (Intra): λ phosphatase treated A549 cells,

Background Information

Protein kinase C (PKC) was initially identified and characterized as a protein hydrolysis-activated kinase called protein kinase M. It has been established that PKC is a family of at least 12 serine/threonine kinases that is divided into three subfamilies: The classical PKCs (α, β1, β2, and γ), which are activated by diacylglycerol (DAG) and calcium; the novel PKCs (δ, ε, η, and θ) which are activated by DAG; and the atypical PKCs (ζ and λ/ι), which respond to neither DAG nor calcium. Phospho-PKC Delta (Ser645) refers to the phosphorylated form of Protein Kinase C Delta (PKC δ) at serine residue 645. This phosphorylation site is located in the C-terminal tail of PKC δ, specifically in the turn motif region, and serves as a critical "priming" phosphorylation that regulates enzyme stability and catalytic activity. (PMID: 28784722) This antibody is equivalent to Ser643 in mice.

Storage

Storage:

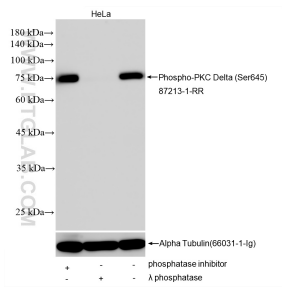
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

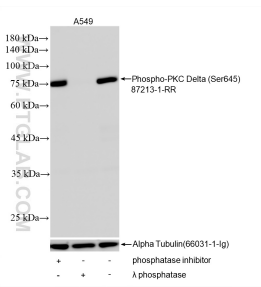
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

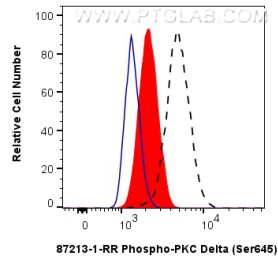
Selected Validation Data



Non-treated HeLa cells, phosphatase inhibitor treated HeLa cells and λ phosphatase treated HeLa cells were subjected to SDS PAGE followed by western blot with 87213-1-RR (Phospho-PKC Delta (Ser645) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as a loading control.



Non-treated A549 cells, phosphatase inhibitor treated A549 cells and λ phosphatase treated A549 cells were subjected to SDS PAGE followed by western blot with 87213-1-RR (Phospho-PKC Delta (Ser645) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as a loading control.



1X10⁶ A549 cells untreated (dashed lines) or treated with λ phosphatase which intracellularly stained with 0.13 ug Phospho-PKC Delta (Ser645) Recombinant monoclonal antibody (87213-1-RR, Clone:252421F 11) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.13 ug Isotype Control (blue). Cells were fixed and permeabilized with Flow Cytometry Phosphorylated Protein Fixation/Permeabilization Kit (PF00026).