For Research Use Only

PKC Iota Polyclonal antibody

Catalog Number:13883-1-AP Featured Product 8 Publications

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Basic Information

Catalog Number:
13883-1-AP

Concentration:
550 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG4990

GenBank Accession Number:
BC022016

GeneID (NCBI):
5584

UNIPROT ID:
P41743

Full Name:
protein kinase C, iota

Calculated MW:
68 kDa

Observed MW:
67 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:6000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:
WB, IHC, IF, IP, CoIP

Species Specificity:
human

Cited Species:
human, mouse, chicken

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, MCF-7 cells

IP : HeLa cells,

IHC : human breast cancer tissue, human lung cancer tissue

IF/ICC : HeLa cells,

Background Information

The atypical protein kinase C isoform PRKC iota (PRKCI) is a member of the protein kinase C (PKC) family of serine/threonine protein kinases. PKC family comprises at least eight members, which are differentially expressed and are involved in a wide variety of cellular processes. PRKC iota is calcium-independent and phospholipid-dependent. It is not activated by phorbolesters or diacylglycerol. This kinase can be recruited to vesicle tubular clusters (VTCs) by direct interaction with the small GTPase RAB2, where this kinase phosphorylates glyceraldehyde-3-phosphate dehydrogenase (GAPD/GAPDH) and plays a role in microtubule dynamics in the early secretory pathway. This kinase is found to be necessary for BCL-ABL-mediated resistance to drug-induced apoptosis and therefore protects leukemia cells against drug-induced apoptosis. PRKC iota plays a key role in cell proliferation, differentiation, and carcinogenesis, and it has been shown to be a human oncogene.

Notable Publications

Author	Pubmed ID	Journal	Application
Wei Gao	33234130	Mol Cancer	WB,IF
Liu Liu	31410027	Onco Targets Ther	WB,IHC
Fangfei Li	35173550	Int J Biol Sci	WB

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

For technical support and original validation data for this product please contact:
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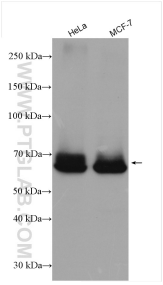
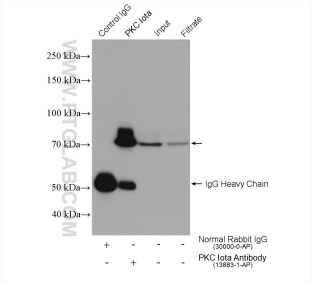
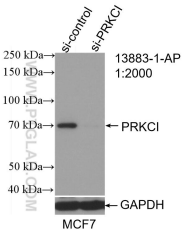
Selected Validation Data



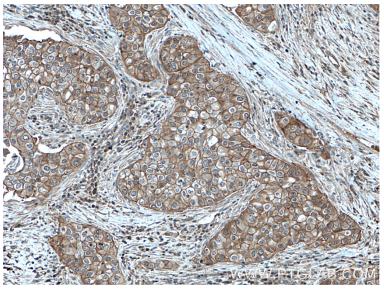
Various lysates were subjected to SDS PAGE followed by western blot with 13883-1-AP (PKC Iota antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



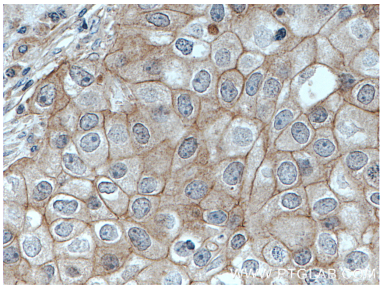
IP result of anti-PKC Iota (IP:13883-1-AP, 4ug; Detection:13883-1-AP 1:2000) with HeLa cells lysate 1720 ug.



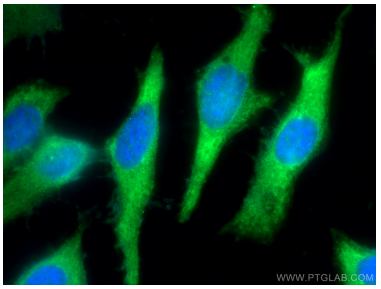
WB result of PKC Iota antibody (13883-1-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PKC Iota transfected MCF-7 cells.



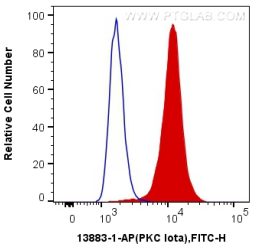
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 13883-1-AP (PKC iota antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 13883-1-AP (PKC iota antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed HeLa cells using PKC Iota antibody (13883-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1X10^6 HeLa cells were intracellularly stained with 0.2 ug Anti-Human PKC Iota (13883-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).