

# PKC Iota Monoclonal antibody

Catalog Number: 66493-1-Ig

Featured Product

1 Publications

## Basic Information

<b>Catalog Number:</b> 66493-1-Ig	<b>GenBank Accession Number:</b> BC022016	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 5584	<b>CloneNo.:</b> 3A1B6
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P41743	<b>Recommended Dilutions:</b> WB 1:5000-1:50000
<b>Isotype:</b> IgG2a	<b>Full Name:</b> protein kinase C, iota	IHC 1:150-1:600
<b>Immunogen Catalog Number:</b> AG4990	<b>Calculated MW:</b> 68 kDa	IF-P 1:200-1:800
	<b>Observed MW:</b> 70 kDa	IF/ICC 1:400-1:1600

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, IF-P, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB	<b>WB :</b> MCF-7 cells, HeLa cells, HEK-293 cells, ROS1728 cells, C6 cells, LNCaP cells, Jurkat cells, HSC-T6 cells, RAW 264.7 cells, NIH/3T3 cells
<b>Species Specificity:</b> human, mouse, rat	<b>IHC :</b> human lung cancer tissue,
<b>Cited Species:</b> human	<b>IF-P :</b> human lung cancer tissue,
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IF/ICC :</b> 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 phorbol esters 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
Antja-Voy Hartley	32456215	Int J Mol Sci	WB

## Storage

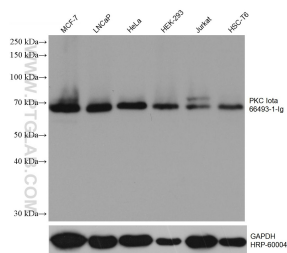
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

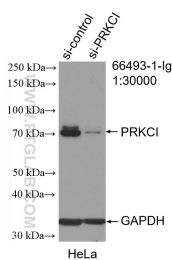
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

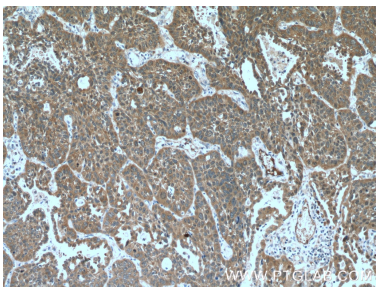
Selected Validation Data



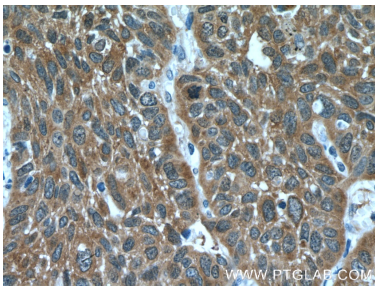
Various lysates were subjected to SDS PAGE followed by western blot with 66493-1-Ig (PKC Iota antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



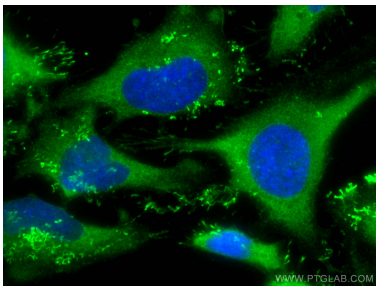
WB result of PKC Iota antibody (66493-1-Ig; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PKC Iota transfected HeLa cells.



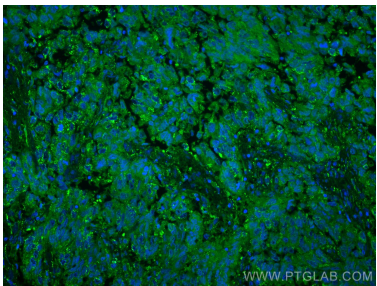
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66493-1-Ig (PKC Iota antibody) at dilution of 1:300 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66493-1-Ig (PKC Iota antibody) at dilution of 1:300 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using PKC Iota antibody (66493-1-Ig, Clone: 3A1B6 ) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed human lung cancer tissue using PKC Iota antibody (66493-1-Ig, Clone: 3A1B6 ) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).