

For Research Use Only

# PKC Iota Monoclonal antibody

Catalog Number: 66493-1-Ig

Featured Product

1 Publications



## Basic Information

|                                                                                                                          |                                              |                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Catalog Number:</b><br>66493-1-Ig                                                                                     | <b>GenBank Accession Number:</b><br>BC022016 | <b>Purification Method:</b><br>Protein A purification                                    |
| <b>Size:</b><br>150ul, Concentration: 1000 µg/ml by Nanodrop and 508 µg/ml by Bradford method using BSA as the standard; | <b>GeneID (NCBI):</b><br>5584                | <b>CloneNo.:</b><br>3A1B6                                                                |
| <b>Source:</b><br>Mouse                                                                                                  | <b>UNIPROT ID:</b><br>P41743                 | <b>Recommended Dilutions:</b><br>WB 1:5000-1:50000<br>IHC 1:150-1:600<br>IF 1:400-1:1600 |
| <b>Isotype:</b><br>IgG2a                                                                                                 | <b>Full Name:</b><br>protein kinase C, iota  |                                                                                          |
| <b>Immunogen Catalog Number:</b><br>AG4990                                                                               | <b>Calculated MW:</b><br>68 kDa              |                                                                                          |
|                                                                                                                          | <b>Observed MW:</b><br>70 kDa                |                                                                                          |

## Applications

**Tested Applications:**  
IF, IHC, WB, ELISA

**Cited Applications:**  
WB

**Species Specificity:**  
Human, rat, mouse

**Cited Species:**  
human

**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:** 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

**IHC:** human lung cancer tissue,

**IF:** HeLa cells, human lung cancer tissue

## 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

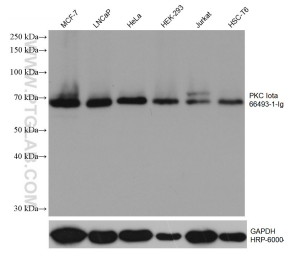
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

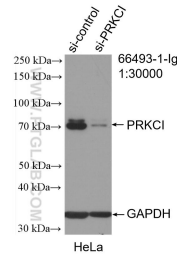
E: proteintech@ptglab.com  
W: ptglab.com

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

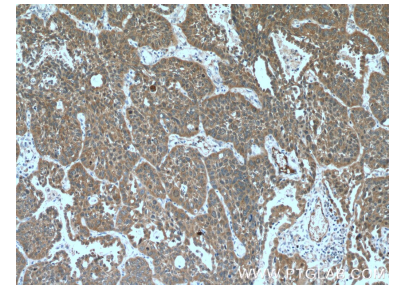
## Selected Validation Data



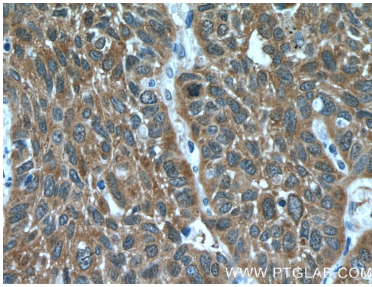
Various lysates were subjected to SDS PAGE followed by western blot with 66493-1-Ig (PKC Iota antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



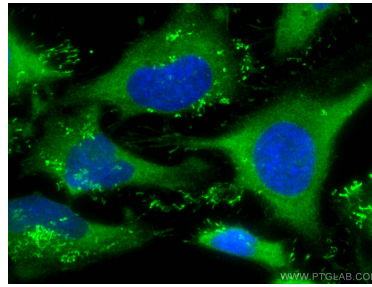
WB result of PKC Iota antibody (66493-1-Ig; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PKC Iota transfected HeLa cells.



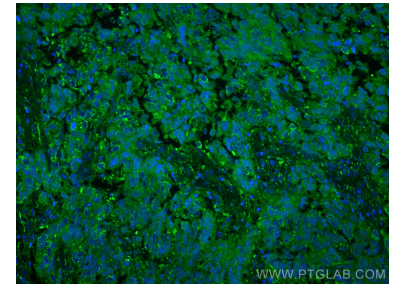
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66493-1-Ig (PKC Iota antibody) at dilution of 1:300 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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 AffiniPure 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 AffiniPure Goat Anti-Mouse IgG(H+L).