# PKCiota[pT555]/ PKClambda[pT563] ABfinity™ Recombinant Rabbit Monoclonal Antibody - Purified



Catalog no. 700582

(See product label for lot information)

Clone/PAD: 31H34L29

 Isotype:
 IgG

 Gene ID:
 5584

 Protein Acc. no.:
 P41743

 Qty:
 100 μg

 Volume:
 200 μl

 Concentration:
 0.5 mg/mL

**Formulation** 

PBS + 0.09% sodium azide

**Validation** 

Validated for use in WB

**Immunogen** 

Peptide

Immunogen sequence

TNEPVQL[pT]PDDD

#### Reactivity

Human

#### **Expected Reactivity**

Based on sequence identity and similarity, reactivity to human, mouse, rat, primates, canine, bovine, swine, chicken, equine, zebrafish, xenopus and numerous other species are expected.

Storage

2-8°C for up to 1 month, -20°C for long term storage. Avoid repeated freezing and thawing.

### **Expiration Date**

Expires one year from date of receipt when stored as instructed.

## Background

PKC iota/PKC lambda, is a 76 kDa member of the atypical group (cPKCs: sensitive to diacylglycerol, phosphotidylserine and phorbol esters) of the PKC family of serine/threonine kinases that are involved in a wide range of physiological processes that include cell growth and differentiation, gene expression and hormone secretion (1-2). Recently PKC iota has been described as an oncogene and has been implicated in various cancers (3). PKC iota has also been linked to heat shock response and as an indirect co-regulator of HSF1 activity (4). Protein kinase C iota/lambda phosphorylates Glyceraldehyde-3-phosphate dehydrogenase thus playing an important role in microtubule dynamics during early secretory pathway (5).

#### References

- (1) Mellor, H., and Parker, P.J. (1998). The extended protein kinase C superfamily. The Biochemical journal 332 ( Pt 2), 281-292.
- (2) Nishizuka, Y. (1984). The role of protein kinase C in cell surface signal transduction and tumour promotion. Nature 308, 693-698.
- (3) Fields, A.P., and Regala, R.P. (2007). Protein kinase C iota: human oncogene, prognostic marker and therapeutic target. Pharmacol Res 55, 487-497.
- (4) Boellmann, F., and Thomas, R.S. The identification of protein kinase C iota as a regulator of the Mammalian heat shock response using functional genomic screens. PloS one 5, e11850.
- (5) Tisdale, E.J. (2002). Glyceraldehyde-3-phosphate dehydrogenase is phosphorylated by protein kinase Ciota /lambda and plays a role in microtubule dynamics in the early secretory pathway. The Journal of biological chemistry 277, 3334-3341.

Following applications had been tested during development. To make sure the consistency and reliability in the future lots, each lot is tested with antigen ELISA for specificity and potency. Each lot is also tested with SDS-PAGE, to ensure high purity.

#### **Applications:**

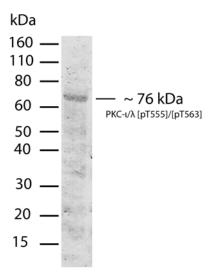
	Species	Test Material	Concentration
Western Blotting	Human	HEK 293	4-5 μg/ml

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Western Blot of PKCiota[pT555]/PKClambda[pT563] labeled with rabbit anti-PKCiota[pT555]/PKClambda[pT563] (Cat. No. 700582).

Rabbit anti-PKCiota[pT555]/PKClambda[pT563] (5  $\mu$ g/ml) was used to label PKCiota[pT555]/PKClambda[pT563] in HEK293 cell lysate (30  $\mu$ g). The western was performed using the WesternBreeze® kit with NBT/BCIP as the substrate (Cat. No.WB7105).

**Explanation of symbols** 

Explanation of Symbols					
Symbol	Description	Symbol	Description		
REF	Catalogue Number	LOT	Batch code		
RUO	Research Use Only	IVD	In vitro diagnostic medical device		
X	Use by	1	Temperature limitation		
***	Manufacturer	EC REP	European Community authorised representative		
[-]	Without, does not contain	[+]	With, contains		
from Light	Protect from light	Æ	Consult accompanying documents		
$\prod_i$	Directs the user to consult instructions for use (IFU), accompanying the product.				

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