

Datasheet for ABIN6256579  
**anti-PKC zeta antibody (pThr560)**

## 3 Images

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## Overview

Quantity:	100 µL
Target:	PKC zeta (PRKCZ)
Binding Specificity:	pThr560
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PKC zeta antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

## Product Details

Immunogen:	A synthesized peptide derived from human PKC zeta around the phosphorylation site of Threonine 560
Isotype:	IgG
Specificity:	Phospho-PKC zeta (Thr560) Antibody detects endogenous levels of PKC zeta only when phosphorylated at Threonine 560
Cross-Reactivity:	Human, Mouse (Murine), Rat (Rattus)
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

## Target Details

Target:	PKC zeta (PRKCZ)
Alternative Name:	PKC zeta ( <a href="#">PRKCZ Products</a> )
Background:	<p>Description: Calcium- and diacylglycerol-independent serine/threonine-protein kinase that functions in phosphatidylinositol 3-kinase (PI3K) pathway and mitogen-activated protein (MAP) kinase cascade, and is involved in NF-kappa-B activation, mitogenic signaling, cell proliferation, cell polarity, inflammatory response and maintenance of long-term potentiation (LTP). Upon lipopolysaccharide (LPS) treatment in macrophages, or following mitogenic stimuli, functions downstream of PI3K to activate MAP2K1/MEK1-MAPK1/ERK2 signaling cascade independently of RAF1 activation. Required for insulin-dependent activation of AKT3, but may function as an adapter rather than a direct activator. Upon insulin treatment may act as a downstream effector of PI3K and contribute to the activation of translocation of the glucose transporter SLC2A4/GLUT4 and subsequent glucose transport in adipocytes. In EGF-induced cells, binds and activates MAP2K5/MEK5-MAPK7/ERK5 independently of its kinase activity and can activate JUN promoter through MEF2C. Through binding with SQSTM1/p62, functions in interleukin-1 signaling and activation of NF-kappa-B with the specific adapters RIPK1 and TRAF6. Participates in TNF-dependent transactivation of NF-kappa-B by phosphorylating and activating IKBKB kinase, which in turn leads to the degradation of NF-kappa-B inhibitors. In migrating astrocytes, forms a cytoplasmic complex with PARD6A and is recruited by CDC42 to function in the establishment of cell polarity along with the microtubule motor and dynein. In association with FEZ1, stimulates neuronal differentiation in PC12 cells. In the inflammatory response, is required for the T-helper 2 (Th2) differentiation process, including interleukin production, efficient activation of JAK1 and the subsequent phosphorylation and nuclear translocation of STAT6. May be involved in development of allergic airway inflammation (asthma), a process dependent on Th2 immune response. In the NF-kappa-B-mediated inflammatory response, can relieve SETD6-dependent repression of NF-kappa-B target genes by phosphorylating the RELA subunit at 'Ser-311'. Necessary and sufficient for LTP maintenance in hippocampal CA1 pyramidal cells. In vein endothelial cells treated with the oxidant peroxynitrite, phosphorylates STK11 leading to nuclear export of STK11, subsequent inhibition of PI3K/Akt signaling, and increased apoptosis. Phosphorylates VAMP2 in vitro (PubMed:17313651).</p> <p>Gene: PRKCZ</p>
Molecular Weight:	80kDa
Gene ID:	5590
UniProt:	<a href="#">Q05513</a>

## Target Details

Pathways:	<a href="#">NF-kappaB Signaling</a> , <a href="#">RTK Signaling</a> , <a href="#">Myometrial Relaxation and Contraction</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Synaptic Membrane</a> , <a href="#">Production of Molecular Mediator of Immune Response</a> , <a href="#">CXCR4-mediated Signaling Events</a> , <a href="#">Thromboxane A2 Receptor Signaling</a>
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## Application Details

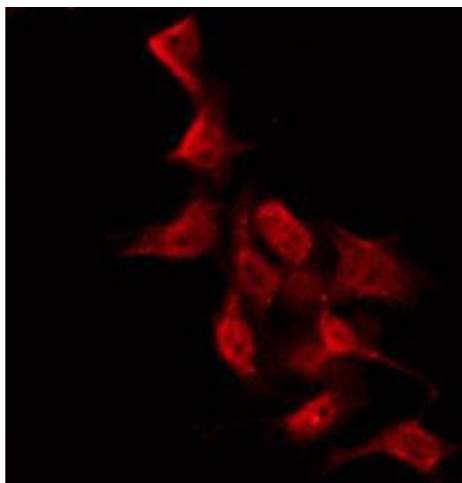
Application Notes:	WB 1:500-1:2000 IHC 1:50-1:200, IF/ICC 1:100-1:500
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Restrictions:	For Research Use only
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## Handling

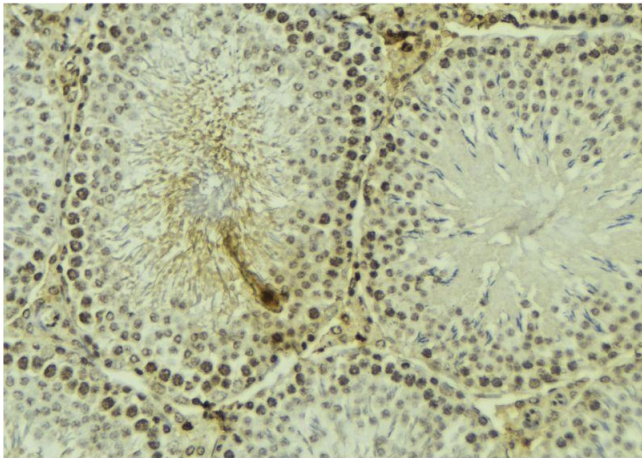
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C.Stable for 12 months from date of receipt
Expiry Date:	12 months

## Images



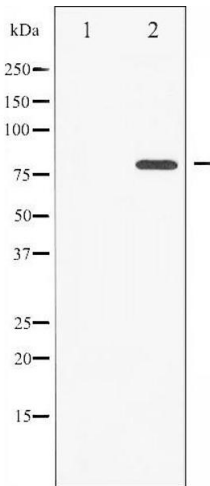
### Immunofluorescence (fixed cells)

**Image 1.** ABIN6267614 staining NIH-3T3 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



### Immunohistochemistry

**Image 2.** ABIN6267614 at 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



### Western Blotting

**Image 3.** Western blot analysis of PKC zeta phosphorylation expression in PMA treated COS7 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.