

Datasheet for ABIN7165706

anti-PKC epsilon antibody (AA 488-737)[Go to Product page](#)**1** Image

Overview

Quantity:	100 µL
Target:	PKC epsilon (PRKCE)
Binding Specificity:	AA 488-737
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PKC epsilon antibody is un-conjugated
Application:	ELISA, Immunoprecipitation (IP)

Product Details

Immunogen:	Recombinant Human Protein kinase C epsilon type protein (488-737AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antigen Affinity Purified

Target Details

Target:	PKC epsilon (PRKCE)
Alternative Name:	PRKCE (PRKCE Products)
Background:	Background: Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that plays essential roles in the regulation of multiple cellular

processes linked to cytoskeletal proteins, such as cell adhesion, motility, migration and cell cycle, functions in neuron growth and ion channel regulation, and is involved in immune response, cancer cell invasion and regulation of apoptosis. Mediates cell adhesion to the extracellular matrix via integrin-dependent signaling, by mediating angiotensin-2-induced activation of integrin beta-1 (ITGB1) in cardiac fibroblasts. Phosphorylates MARCKS, which phosphorylates and activates PTK2/FAK, leading to the spread of cardiomyocytes. Involved in the control of the directional transport of ITGB1 in mesenchymal cells by phosphorylating vimentin (VIM), an intermediate filament (IF) protein. In epithelial cells, associates with and phosphorylates keratin-8 (KRT8), which induces targeting of desmoplakin at desmosomes and regulates cell-cell contact. Phosphorylates IQGAP1, which binds to CDC42, mediating epithelial cell-cell detachment prior to migration. In HeLa cells, contributes to hepatocyte growth factor (HGF)-induced cell migration, and in human corneal epithelial cells, plays a critical role in wound healing after activation by HGF. During cytokinesis, forms a complex with YWHAB, which is crucial for daughter cell separation, and facilitates abscission by a mechanism which may implicate the regulation of RHOA. In cardiac myocytes, regulates myofilament function and excitation coupling at the Z-lines, where it is indirectly associated with F-actin via interaction with COPB1. During endothelin-induced cardiomyocyte hypertrophy, mediates activation of PTK2/FAK, which is critical for cardiomyocyte survival and regulation of sarcomere length. Plays a role in the pathogenesis of dilated cardiomyopathy via persistent phosphorylation of troponin I (TNNI3). Involved in nerve growth factor (NGF)-induced neurite outgrowth and neuron morphological change independently of its kinase activity, by inhibition of RHOA pathway, activation of CDC42 and cytoskeletal rearrangement. May be involved in presynaptic facilitation by mediating phorbol ester-induced synaptic potentiation. Phosphorylates gamma-aminobutyric acid receptor subunit gamma-2 (GABRG2), which reduces the response of GABA receptors to ethanol and benzodiazepines and may mediate acute tolerance to the intoxicating effects of ethanol. Upon PMA treatment, phosphorylates the capsaicin- and heat-activated cation channel TRPV1, which is required for bradykinin-induced sensitization of the heat response in nociceptive neurons. Is able to form a complex with PDLIM5 and N-type calcium channel, and may enhance channel activities and potentiates fast synaptic transmission by phosphorylating the pore-forming alpha subunit CACNA1B (CaV2.2). In prostate cancer cells, interacts with and phosphorylates STAT3, which increases DNA-binding and transcriptional activity of STAT3 and seems to be essential for prostate cancer cell invasion. Downstream of TLR4, plays an important role in the lipopolysaccharide (LPS)-induced immune response by phosphorylating and activating TICAM2/TRAM, which in turn activates the transcription factor IRF3 and subsequent cytokines production. In differentiating erythroid progenitors, is regulated by EPO and controls the protection against the TNFSF10/TRAIL-mediated apoptosis, via BCL2.

Target Details

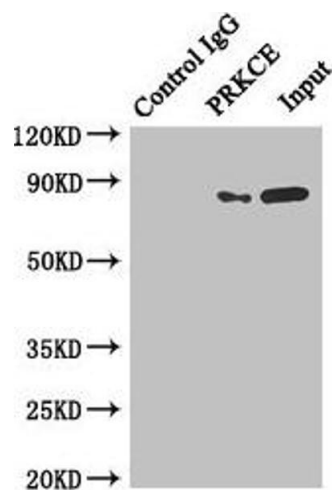
	May be involved in the regulation of the insulin-induced phosphorylation and activation of AKT1. Aliases: KPCE_HUMAN antibody, MGC125656 antibody, MGC125657 antibody, nPKC epsilon antibody, nPKC-epsilon antibody, PKCE antibody, Pkcea antibody, PRKCE antibody, Protein kinase C epsilon antibody, Protein kinase C epsilon type antibody
UniProt:	Q02156
Pathways:	TCR Signaling , EGFR Signaling Pathway , Neurotrophin Signaling Pathway , Positive Regulation of Peptide Hormone Secretion , Activation of Innate immune Response , Cellular Response to Molecule of Bacterial Origin , Regulation of Actin Filament Polymerization , Myometrial Relaxation and Contraction , Regulation of Carbohydrate Metabolic Process , Interaction of EGFR with phospholipase C-gamma , Thromboxane A2 Receptor Signaling

Application Details

Application Notes:	Recommended dilution: IP:1:200-1:2000,
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.
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,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.



Western Blotting

Image 1. Immunoprecipitating PRKCE in MCF-7 whole cell lysate Lane 1: Rabbit control IgG instead of (1 μ g) instead of ABIN7165706 in MCF-7 whole cell lysate. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the Secondary antibody (1/50000) Lane 2: ABIN7165706 (4 μ g) + MCF-7 whole cell lysate (500 μ g) Lane 3: MCF-7 whole cell lysate (20 μ g)