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Rabbit Anti-phospho-PRKCZ (Thr410)/Biotin Conjugated antibody

SL5560R-Bio

Product Name	Anti-phospho-PRKCZ (Thr410)/Biotin
Chinese Name	生物素标记的磷酸化蛋白激酶 C(T410)抗体
Alias	PKC zeta (phospho T410); p-PKC zeta (phospho T410); PRKCZ(phospho T410); PRKCZ(phosp p-PRKCZ(T410); 14-3-3-zetaisoform; AI098070; aPKCzeta; C80388; EC 2.7.11.13; KPCZ_HU nPKC zeta; nPKC-zeta; OTTHUMP00000001368; OTTHUMP00000044160; PKC 2; PKC ZET Pkcz; PKCZETA; PKM-zeta, included; PRKCZ; Protein kinase C zeta; Protein kinase C zeta for kinase C zeta type; r14-3-3; R74924; zetaPKC.
Product Type	Phosphorylated anti
Research Area	immunology Neurobiology Signal transduction transcriptional regulatory factor Kinases and Pho
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit)
Applications	WB=1000-10000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:50-200,IF=1:100-500,ELISA= not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	66kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated Synthesised phosphopeptide derived from human PRKCZ around the phosphor of Thr410
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stab temperature for at least one month and for greater than a year when kept at -20°C. When reconst sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4

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Product Detail

background:
Protein kinase C (PKC) zeta is a member of the PKC family of serine/threonine kinases which are a variety of cellular processes such as proliferation, differentiation and secretion. Unlike the clas isoenzymes which are calcium-dependent, PKC zeta exhibits a kinase activity which is independ calcium and diacylglycerol but not of phosphatidylserine. Furthermore, it is insensitive to typica inhibitors and cannot be activated by phorbol ester. Unlike the classical PKC isoenzymes, it has c zinc finger module. These structural and biochemical properties indicate that the zeta subspecies but distinct from other isoenzymes of PKC. Alternative splicing results in multiple transcript var encoding different isoforms. [provided by RefSeq, Jul 2008].

Function:
Calcium- and diacylglycerol-independent serine/threonine-protein kinase that functions in phosphatidylinositol 3-kinase (PI3K) pathway and mitogen-activated protein (MAP) kinase casc involved in NF-kappa-B activation, mitogenic signaling, cell proliferation, cell polarity, inflamm response and maintenance of long-term potentiation (LTP). Upon lipopolysaccharide (LPS) treat macrophages, or following mitogenic stimuli, functions downstream of PI3K to activate MAP2K1/MEK1-MAPK1/ERK2 signaling cascade independently of RAF1 activation. Required insulin-dependent activation of AKT3, but may function as an adapter rather than a direct activa insulin treatment may act as a downstream effector of PI3K and contribute to the activation of tran the glucose transporter SLC2A4/GLUT4 and subsequent glucose transport in adipocytes. In EGF cells, binds and activates MAP2K5/MEK5-MAPK7/ERK5 independently of its kinase activity a activate JUN promoter through MEF2C. Through binding with SQSTM1/p62, functions in interl signaling and activation of NF-kappa-B with the specific adapters RIPK1 and TRAF6. Participat TNF-dependent transactivation of NF-kappa-B by phosphorylating and activating IKBKB kinase turn leads to the degradation of NF-kappa-B inhibitors. In migrating astrocytes, forms a cytoplasm with PARD6A and is recruited by CDC42 to function in the establishment of cell polarity along microtubule motor and dynein. In association with FEZ1, stimulates neuronal differentiation in PC inflammatory response, is required for the T-helper 2 (Th2) differentiation process, including int production, efficient activation of JAK1 and the subsequent phosphorylation and nuclear translo STAT6. May be involved in development of allergic airway inflammation (asthma), a process de Th2 immune response. In NF-kappa-B-mediated inflammatory response, can relieve the SETD6 repression of NF-kappa-B target genes by phosphorylating the RELA subunit at 'Ser-311'. Is nec sufficient for LTP maintenance in hippocampal CA1 pyramidal cells.

Subunit:
Forms a ternary complex with SQSTM1 and KCNAB2. Forms another ternary complex with SQ GABRR3. Forms a complex with SQSTM1 and MAP2K5 (By similarity). Interacts with PARD6 PARD6B, PARD6G and SQSTM1. Part of a complex with PARD3, PARD6A or PARD6B or PA CDC42 or RAC1. Interacts with ADAP1/CENTA1. Forms a ternary complex composed of SQS PAWR. Interacts directly with SQSTM1 (Probable). Interacts with IKBKB. Interacts (via the pro domain) with WWC1. Forms a tripartite complex with WWC1 and DDR1, but predominantly in of collagen. Component of the Par polarity complex, composed of at least phosphorylated PRKC and TIAM1. Interacts with PDPK1 (via N-terminus region).

Subcellular Location:
Cytoplasm. Endosome. Cell junction. Note=In the retina, localizes in the terminals of the rod bip
Associates with endosomes. Presence of KRIT1, CDH5 and RAP1B is required for its localizatio
junction.

Tissue Specificity:
Expressed in brain, and to a lesser extent in lung, kidney and testis.

Post-translational modifications:
CDH5 is required for its phosphorylation at Thr-410. Phosphorylated by protein kinase PDPK1;
phosphorylation is inhibited by the apoptotic C-terminus cleavage product of PKN2. Phosphoryl
Thr-410 by PI3K activates the kinase.

Similarity:
Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily.
Contains 1 AGC-kinase C-terminal domain.
Contains 1 OPR domain.
Contains 1 phorbol-ester/DAG-type zinc finger.
Contains 1 protein kinase domain.

Database links:

Entrez Gene: 5590 Human

Entrez Gene: 18762 Mouse

Entrez Gene: 25522 Rat

Omim: 176982 Human

SwissProt: Q05513 Human

SwissProt: Q02956 Mouse

SwissProt: P09217 Rat

Unigene: 496255 Human

Unigene: 28561 Mouse

Unigene: 1109 Rat

Important Note:

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This product as supplied is intended for research use only, not for use in human, therapeutic or d
applications.