PKCζ(Phospho-Thr410) Antibody

Catalog No: #AB11314

Package Size: #AB11314-1 50ul #AB11314-2 100ul #AB11314-4 25ul

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Description

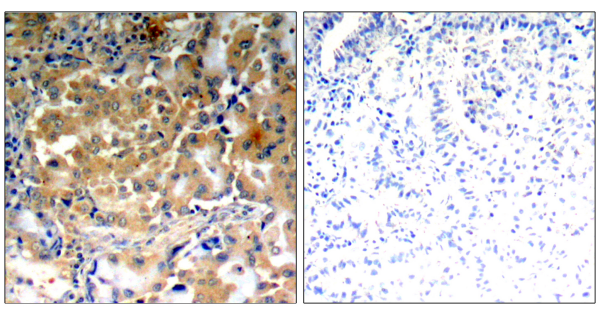
Product Name	PKCζ(Phospho-Thr410) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Applications	IHC
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of PKCζ only when phosphorylated at threonine 410.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of threonine 410(T-S-T(p)-F-C) derived from Human PKCζ.
Target Name	PKCζ
Modification	Phospho-Thr410
Other Names	PKC2; PKC-ZETA
Accession No.	Swiss-Prot: Q05513; NCBI Gene ID: 5590; NCBI mRNA: NM_001033581.1; NCBI Protein: NP_001028753.1
SDS-PAGE MW	78KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

Predicted MW: 78kd

Immunohistochemistry: 1:50~1:100

Images



Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using PKCζ (Phospho-Thr410) antibody (#AB11314).

Background

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 inflammatory response, is required for the T-helper 2 (Th2) differentiation process, including interleukins 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 NF-kappa-B-mediated inflammatory response, can relieve the SETD6-dependent repression of NF-kappa-B target genes by phosphorylating the RELA subunit at 'Ser-311'. Is necessary and sufficient for LTP maintenance in hippocampal CA1 pyramidal cells.