Data Sheet (Cat.No.TMAH-00947)

TargetMol

Anti-Phospho-PRKCZ (Thr560) Antibody (4U244)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4U244
Purification:	Affinity-chromatography

Applications

Verified Activity:	Western Blot -Positive WB detected in A549 whole cell lysate -All lanes Phospho-PRKCZ antibody at 1.55μg/ml -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 68 KDa -Observed band size: 68 KDa
Application:	ELISA,WB
Recommended	WB:1:500-1:5000.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human Phospho-PRKCZ (T560)
Antigen Species:	Human
Gene ID:	5590
Uniprot ID:	Q05513
Synonyms:	p-PRKCZ (T560);14-3-3-zetaisoform;PRKCZ (p-Thr560);Phospho-PRKCZ (T560);PKC2;PKC ZETA;r14-3-3;OTTHUMP00000001368;PRKCZ (p-T560);Pkcz;Protein kinase C zeta;PKC 2;EC 2.7.11.13;p-PRKCZ (Thr560);OTTHUMP00000044160;zetaPKC;R74924;KPCZ_HUMAN;nPKC zeta;PKM-zeta;C80388;PRKCZ;nPKC-zeta;PKCZETA;aPKCzeta;AI098070
Biology Area:	Signal Transduction

Research 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 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'. Phosphorylates VAMP2 in vitro. Involved in late synaptic long term potention phase in CA1 hippocampal cells and long term memory maintenance.

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