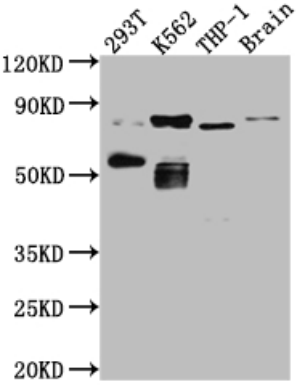
PRKCQ Antibody

Product Code	CSB-RA978159A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q04759
Immunogen	A synthesized peptide derived from human PKC theta
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that mediates non-redundant functions in T-cell receptor (TCR) signaling, including T-cells activation, proliferation, differentiation and survival, by mediating activation of multiple transcription factors such as NF-kappa-B, JUN, NFATC1 and NFATC2. In TCR-CD3/CD28-co-stimulated T-cells, is required for the activation of NF-kappa-B and JUN, which in turn are essential for IL2 production, and participates in the calcium-dependent NFATC1 and NFATC2 transactivation. Mediates the activation of the canonical NF-kappa-B pathway (NFKB1) by direct phosphorylation of CARD11 on several serine residues, inducing CARD11 association with lipid rafts and recruitment of the BCL10-MALT1 complex, which then activates IKK complex, resulting in nuclear translocation and activation of NFKB1. May also play an indirect role in activation of the non-canonical NF-kappa-B (NFKB2) pathway. In the signaling pathway leading to JUN activation, acts by phosphorylating the mediator STK39/SPAK and may not act through MAP kinases signaling. Plays a critical role in TCR/CD28-induced NFATC1 and NFATC2 transactivation by participating in the regulation of reduced inositol 1,4,5-trisphosphate generation and intracellular calcium mobilization. After costimulation of T-cells through CD28 can phosphorylate CBLB and is required for the ubiquitination and subsequent degradation of CBLB, which is a prerequisite for the activation of TCR. During T-cells differentiation, plays an important role in the development of T-helper 2 (Th2) cells following immune and inflammatory responses, and, in the development of inflammatory autoimmune diseases, is necessary for the activation of IL17-producing Th17 cells. May play a minor role in Th1 response. Upon TCR stimulation, mediates T-cell protective survival signal by phosphorylating BAD, thus protecting T-cells from BAD-induced apoptosis, and by up-regulating BCL-X(L)/BCL2L1 levels through NF-kappa-B and JUN pathways. In platelets, regulates signal transduction downstream of the ITGA2B, CD36/GP4, F2R/PAR1 and F2RL3/PAR4 receptors, playing a positive role in 'outside-in' signaling and granule secretion signal transduction. May relay signals from the activated ITGA2B receptor by regulating the uncoupling of WASP and WIPF1, thereby permitting the regulation of actin filament nucleation and branching activity of the Arp2/3 complex. May mediate inhibitory effects of free fatty acids on insulin signaling by phosphorylating IRS1, which in turn blocks IRS1 tyrosine phosphorylation and downstream activation of the PI3K/AKT pathway. Phosphorylates MSN (moesin) in the presence of phosphatidylglycerol or phosphatidylinositol. Phosphorylates PDPK1 at 'Ser-504'

	and 'Ser-532' and negatively regulates its ability to phosphorylate PKB/AKT1.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Signal transduction
Gene Names	PRKCQ
Accession NO.	1B2

Image



Western Blot
Positive WB detected in: 293T whole cell lysate, K562 whole cell lysate, THP-1 whole cell lysate, Mouse Brain whole cell lysate
All lanes: PKC antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 82, 75, 68 kDa
Observed band size: 82, 55 kDa

Description

The DNA sequence coding for the PRKCQ monoclonal antibody developed from animals immunized with a human PRKCQ synthetic peptide was cloned into an expression vector and then transfected into a cell line for in vitro expression. The recombinant PRKCQ monoclonal antibody was obtained through affinity chromatography purification of the product from the tissue culture supernatant (TCS). The PRKCQ from human and mouse sources is especially targeted by this PRKCQ antibody. It's a rabbit IgG antibody. This PRKCQ antibody has been evaluated using ELISA and WB methods.

PRKCQ is increasingly being found in solid tumors, including gastrointestinal stromal tumors (GIST) and breast cancer, particularly ER-negative tumors. PRKCQ overexpression can enhance growth-factor-independent growth, anoikis resistance, and migration. A subgroup of triple-negative breast cancer (TNBC) requires PRKCQ to grow and survive.