

German Research Products - GRP GmbH

In der Stockwiese 26 D-85410 Haag/Amper, Germany Email: info@grp-ak.de

Phone: +49 (0)8167 6335

Product Datasheet

PRKCQ(Thr538) Polyclonal Antibody GRP565

Description

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 to 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.



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Species/Host Rabbit

Reactivity Human, Mouse, Rat

Conjugation Unconjugated

Tested Applications IHC-P, WB

Immunogen KLH conjugated synthetic phosphopeptide derived from human

PRKCQ around the phosphorylation site of Thr538 (public_immunogen_range: 532-540/706)

Form/Appearance Aqueous buffered solution containing 1% BSA, 50% glycerol and

0.09% sodium azide.

Concentration 1ug/ul

Store at -20°C for 12 months. **Storage**

Note For research use only.

Isotype IgG

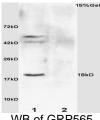
Clonality Polyclonal

Purity Purified by Protein A.

Uniprot ID Q04759

Entrez 5588

WB: 1:300-1000, IHC-P: 1:200-400 **Dilution Range**



WB of GRP565



IHC-P of GRP565