Datasheet for ABIN968924

anti-PKC theta antibody (pThr538)

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Overview

Quantity:	150 µg
Target:	PKC theta (PRKCQ)
Binding Specificity:	pThr538
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PKC theta antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Formalin-fixed Sections) (IHC (f))

Product Details

Immunogen:	Phosphorylated Human PKCtheta Peptide
Clone:	19-PKC
Isotype:	IgG2a
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	PKC theta (PRKCQ)
Alternative Name:	PKC theta (PRKCQ Products)
Background:	The Protein Kinase C (PKC) family of homologous serine/threonine protein kinases is involved in a number of processes such as growth, differentiation, and cytokine secretion. Three categories exist, conventional PKC (cPKC), novel PKC (nPKC), and atypical PKC (aPKC). These proteins are products of multiple genes and alternative splicing and have different modes of activation. For example, cPKC's members (alpha, betaI, betaII, and gamma) are calcium activated, phospholipid-dependent serine/threonine specific enzymes which can also be activated by phorbol esters. However, the novel PKC (nPKC) subfamily members (delta , epsilon, pi, and theta isoforms) and the atypical PKC (PKC) subfamily members (zeta , í , and lambda isoforms) are Ca[2+] independent. The aPKC members are unique in that their activity is independent of diacylglycerols and phorbol esters. The PKC pathway represents a major signal transduction system that is activated following ligand-stimulation of transmembrane receptors by hormones, neurotransmitters and growth factors. PKCtheta transcripts are expressed in most tissues with the highest levels being found in hematopoietic tissues and cell lines, including T cells and thymocytes. PKCtheta RNA is readily detectable in skeletal muscle, lung, and brain. However, PKCtheta expression is not detected in several human carcinoma cell lines. Abundant expression of this PKC isozyme in hematopoietic cells suggests that it may have a role in growth and differentiation processes of these cells. The 9/PKC monoclonal antibody recognizes the phosphorylated threonine 538 (pT538) of human PKCtheta.
Molecular Weight:	79 kDa
Pathways:	TCR Signaling, Fc-epsilon Receptor Signaling Pathway, Myometrial Relaxation and Contraction, Regulation of G-Protein Coupled Receptor Protein Signaling, Thromboxane A2 Receptor Signaling

Application Details

Comment:	Related Products: ABIN967738
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL

Handling

Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:	Soderling: "Protein kinases. Regulation by autoinhibitory domains." in: **The Journal of biological chemistry**, Vol. 265, Issue 4, pp. 1823-6, (1990) (PubMed). Nishizuka: "The molecular heterogeneity of protein kinase C and its implications for cellular regulation." in: **Nature**, Vol. 334, Issue 6184, pp. 661-5, (1988) (PubMed).

Images

Image 1. Jurkat cells were treated with Anti-CD3 and were then either left untreated (lane 1) or treated (lane 2) with 200 U/ml of lambda phosphatase for 1 hr at 37°C. The top panel was probed with PKCtheta (ABIN967738) and the bottom panel was probed with PKCtheta (pT538).