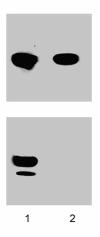
# **Technical Data Sheet** Purified Mouse Anti-PKC0 (pT538)

Product Information	
Material Number:	612734
Size:	50 µg
Concentration:	250 µg/ml
Clone:	19/PKC
Immunogen:	Phosphorylated Human PKC0 Peptide
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human
Target MW:	79 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and $\leq 0.09\%$ sodium azide.

#### Description

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  $(\alpha, \beta I, \beta II, and \gamma)$  are calcium activated, phospholipid-dependent serine/threonine specific enzymes which can also be activated by phorbol esters. However, the novel PKC (nPKC) subfamily members ( $\delta$ ,  $\varepsilon$ ,  $\pi$ , and  $\theta$  isoforms) and the atypical PKC (PKC) subfamily members ( $\zeta$ , i, 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. PKC0 transcripts are expressed in most tissues with the highest levels being found in hematopoietic tissues and cell lines, including T cells and thymocytes. PKC0 RNA is readily detectable in skeletal muscle, lung, and brain. However, PKC0 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 PKC0.



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 PKC0 (Cat. No. 610089) and the bottom panel was probed with PKC0 (pT538).

### **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

#### **Application Notes**

Application Western blot	Routinely Tested
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## **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols 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.

#### References

Nishizuka Y. The molecular heterogeneity of protein kinase C and its implications for cellular regulation. *Nature*. 1988; 334(6184):661-665.(Biology) Soderling TR. Protein kinases. Regulation by autoinhibitory domains. *J Biol Chem*. 1990; 265(4):1823-1826.(Biology)