Technical Data Sheet

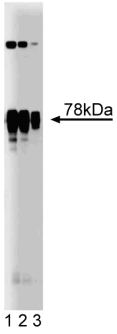
Purified Mouse Anti-PKCδ

Product Information

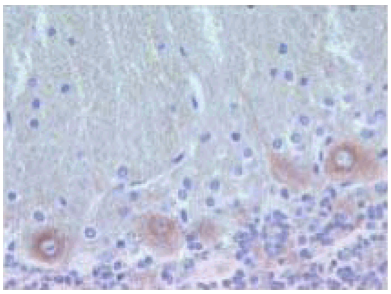
Material Number:	**610397**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	14/PKC delta
Immunogen:	Human PKCδ aa. 114-289
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Rat Tested in Development: Human, Mouse
Target MW:	78 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

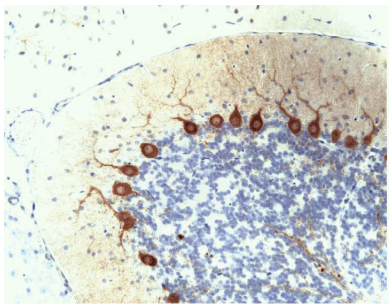
The Protein Kinase C (PKC) family of homologous serine/threonine protein kinases. At least eleven isozymes have been described. These proteins are products of multiple genes and alternative splicing. PKC consists of a single polypeptide chain containing four conserved regions (C) and five variable regions (V). The N-terminal half containing C1, C2, V1, and V2 constitutes the regulatory domain and interacts with PKC activators Ca2+, phospholipid, diacylglycerol, or phorbol ester. However, the novel PKC (nPKC) subfamily members (δ, ε, η, and θ isoforms) and the atypical PKC (aPKC) subfamily members (ζ, ι, and λ isoforms) are Ca2+ independent and lack the C2 domain. The aPKC members are unique in that their activity is independent of diacylglycerols and phorbol esters. They also lack one repeat of the cysteine-rich sequences that are conserved in cPKC and nPKC. The C-terminal region of PKC contains the catalytic domain. PKCδ is involved in myeloid differentiation, as well as in the secretory response of antigen-stimulated rat basophilic RBL 2H3 cells. Overexpression and subsequent stimulation of PKCδ leads to cell cycle arrest in CHO cells and complete growth inhibition of NIH 3T3 cells. PKCδ is the most abundant isoform in hemopoietic cells and is highly expressed in many other organs and tissues. This suggests that PKCδ may be one of the major PKC isozymes in mammalian cells.



Western blot analysis of PKCδ on rat brain lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of PKCδ.*



Rat brain zinc-fixed paraffin-embedded tissue



Purkinje Cells in rat cerebellum, formalin-fixed paraffin-embedded tissue, citrate pre-treatment, 40X

Preparation and Storage

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

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development
Immunoprecipitation	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)

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

Bell RM, Burns DJ. Lipid activation of protein kinase C. *J Biol Chem.* 1991; 266(8):4661-4664.(Biology)

Blass M, Kronfeld I, Kazimirsky G, Blumberg PM, Brodie C. Tyrosine phosphorylation of protein kinase Cdelta is essential for its apoptotic effect in response to etoposide. *Mol Cell Biol.* 2002; 22(1):182-195.(Clone-specific: Immunofluorescence, Immunoprecipitation, Western blot)

Larsen EC, Ueyama T, Brannock PM, et al. A role for PKC-epsilon in Fc gammaR-mediated phagocytosis by RAW 264.7 cells. *J Cell Biol.* 2002; 159(6):939-944. (Clone-specific: Immunofluorescence, Western blot)

Nishizuka Y. The molecular heterogeneity of protein kinase C and its implications for cellular regulation. *Nature.* 1988; 334(6184):661-665.(Biology)

Ringshausen I, Schneller F, Bogner C, et al. Constitutively activated phosphatidylinositol-3 kinase (PI-3K) is involved in the defect of apoptosis in B-CLL: association with protein kinase Cdelta. *Blood.* 2002; 100(10):3741-3748.(Clone-specific: Immunoprecipitation)