Datasheet for ABIN967826

anti-PKC iota antibody (AA 397-558)

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Overview

Quantity:	150 µg
Target:	PKC iota (PRKCI)
Binding Specificity:	AA 397-558
Reactivity:	Human, Mouse, Rat, Dog, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PKC iota antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Human PKClambda aa. 397-558
Clone:	41-PKClambda
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus), Dog (Canine), Mouse (Murine), Chicken
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.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	PKC iota (PRKCI)
Alternative Name:	Protein Kinase C lambda (PRKCI 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. 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 the PKC activators Ca2+, phospholipid, diacylglycerol, or phorbol ester. However, the novel PKC (nPKC) subfamily members (delta, epsilon, eta, and theta isoforms) and the atypical PKC (aPKC) subfamily members (zeta, ι, and lambda 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. The PKC pathway represents a major signal transduction system that is activated following ligand-stimulation of transmembrane receptors by hormones, neurotransmitters, and growth factors. PKClambda shows the highest degree of amino acid homology with PKCzeta (72%) and PKClambda mRNA is expressed in a variety of cells and tissues. The PKClambda protein kinase is capable of autophosphorylation and can be activated by phosphatidylserine, but not by other PKC activators such as diacylglycerols, Ca2+, or phorbol esters.
Molecular Weight:	74 kDa
Pathways:	Neurotrophin Signaling Pathway, Cell-Cell Junction Organization, Tube Formation

Application Details

Comment:	Related Products: ABIN967389, ABIN968545
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Concentration:	250 µg/mL
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:

Trauzold, Wermann, Arlt, Schütze, Schäfer, Oestern, Röder, Ungefroren, Lampe, Heinrich, Walczak, Kalthoff: "CD95 and TRAIL receptor-mediated activation of protein kinase C and NF-kappaB contributes to apoptosis resistance in ductal pancreatic adenocarcinoma cells." in: **Oncogene**, Vol. 20, Issue 31, pp. 4258-69, (2001) (PubMed).

Pauken, Capco: "The expression and stage-specific localization of protein kinase C isotypes during mouse preimplantation development." in: **Developmental biology**, Vol. 223, Issue 2, pp. 411-21, (2000) (PubMed).

Jain, Zhang, Kee, Li, Cao: "Protein kinase C delta associates with and phosphorylates Stat3 in an interleukin-6-dependent manner." in: **The Journal of biological chemistry**, Vol. 274, Issue 34, pp. 24392-400, (1999) (PubMed).

Uberall, Giselbrecht, Hellbert, Fresser, Bauer, Gschwendt, Grunicke, Baier: "Conventional PKC-alpha, novel PKC-epsilon and PKC-theta, but not atypical PKC-lambda are MARCKS kinases in intact NIH 3T3 fibroblasts." in: **The Journal of biological chemistry**, Vol. 272, Issue 7, pp. 4072-8, (1997) (PubMed).

Akimoto, Mizuno, Osada, Hirai, Tanuma, Suzuki, Ohno: "A new member of the third class in the protein kinase C family, PKC lambda, expressed dominantly in an undifferentiated mouse embryonal carcinoma cell line and also in many tissues and cells." in: **The Journal of biological chemistry**, Vol. 269, Issue 17, pp. 12677-83, (1994) (PubMed).

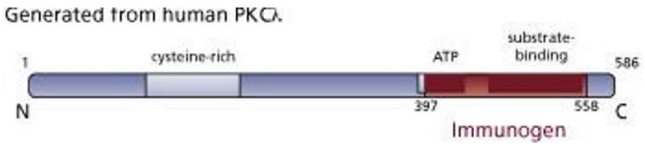
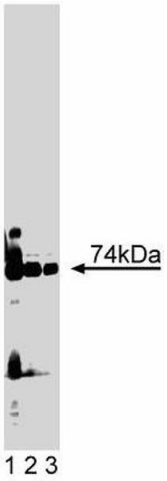
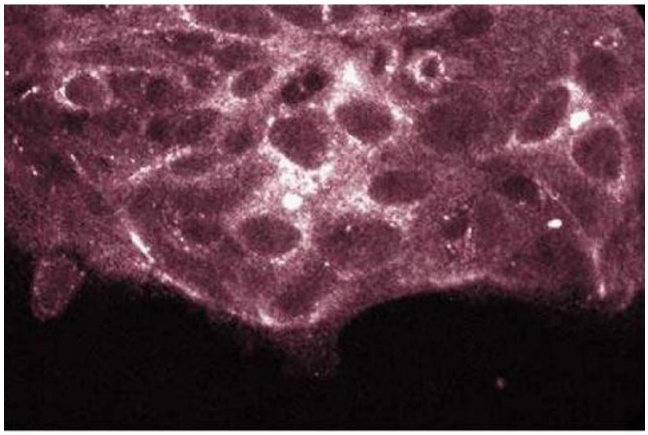


Image 1.



Western Blotting

Image 2. Western blot analysis of PKClambda on rat brain lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of PKClambda.



Immunofluorescence

Image 3. Immunofluorescence staining of HCT-8 cells.

Please check the product details page for more images. Overall 4 images are available for ABIN967826.