Human/Mouse/Rat PKCι/λ/ζ Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4465

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse and rat PKCι/λ/ζ in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human PKCι Ile455-Val596 Accession # P41743
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

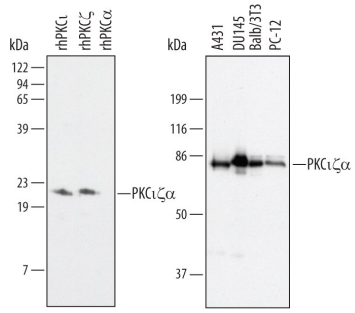
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

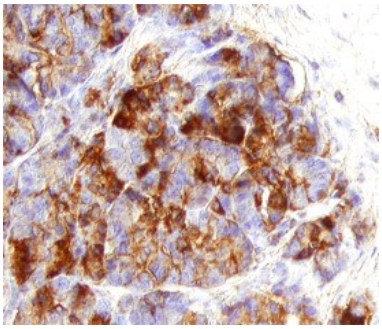
DATA

Western Blot



Detection of Human, Mouse, and Rat PKCι/λ/ζ by Western Blot. Western blot shows lysates of A431 human epithelial carcinoma cell line, DU145 human prostate carcinoma cell line, Balb/3T3 mouse embryonic fibroblast cell line, and PC-12 rat adrenal pheochromocytoma cell line. PVDF membrane was probed with 1 µg/mL Sheep Anti-Human/Mouse/Rat PKCι/λ/ζ Cross-reactive Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4465) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). For additional reference, recombinant human PKCι, PKCλ, and PKCζ (2 ng/lane) were included. Specific bands were detected at approximately 22 kDa for recombinant PKCι/λ and ~80 kDa for natural PKCι/λ (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



PKCι/λ/ζ in Human Pancreas. PKCι/λ/ζ was detected in immersion fixed paraffin-embedded sections of human pancreas using Sheep Anti-Human/Mouse/Rat PKCι/λ/ζ Cross-reactive Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4465) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.This application has not been tested in mouse or rat samples.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Members of the Protein Kinase C (PKC) family are serine/threonine protein kinases that play a key regulatory role in a number of cellular functions including cell growth and differentiation, hormone secretion, and gene expression. Multiple genes and alternative splicing result in three subfamilies, which differ in their co-factor requirements: conventional PKC isoforms (α, βI, βII, and γ) which require calcium and phosphatidylserine (PS), diacylglycerol (DAG) or phorbol esters for activation; novel isoforms (δ, ε, η, and θ), which are calcium-independent but are still regulated by PS, DAG, or phorbol esters; and atypical isoforms (ι, λ, and ζ), which are calcium-independent and do not require PS, DAG, or phorbol esters for activation. PKCι has 72% overall identity to PKCζ. Atypical PKCs have been shown to serve as a convergent downstream target for the PI 3-kinase and TC10 signaling pathways. Stimulation of atypical PKCs by TNF-α has been shown to be required for NF-κB activation. Furthermore, insulin-stimulated atypical PKC activation has been directly implicated in the translocation of GLUT4 and glucose uptake in adipocytes.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956