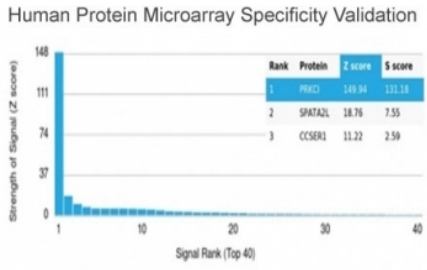
PKC Iota Antibody / PRKCI Antibody [clone PRKCI/4912] (V9722)

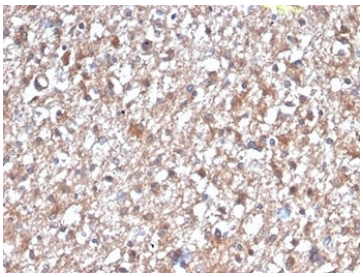
Catalog No.	Formulation	Size
V9722-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9722-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9722SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

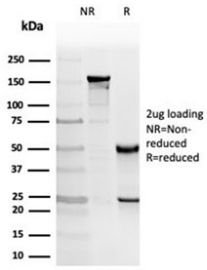
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	PRKCI/4912
Purity	Protein A/G affinity
UniProt	P41743
Localization	Cytoplasm, Cell Membrane, Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This PKC Iota Antibody / PRKCI Antibody is available for research use only.



PKC Iota Antibody / PRKCI Antibody Human Protein Microarray. Analysis of a HuProt(TM) protein microarray containing more than 19,000 full-length human proteins using PKC Iota Antibody / PRKCI Antibody, clone PRKCI/4912, demonstrates exceptional target specificity. The antibody exhibits a high Z-score for PRKCI together with an outstanding S-score of 131.18, indicating highly selective recognition of the intended target with minimal cross-reactivity to other human proteins. The Z-score reflects the strength of antibody binding relative to background, while the S-score measures the specificity of binding to PRKCI compared with the next highest-ranking proteins on the array.



PKC Iota Antibody / PRKCI Antibody Human Brain IHC. Immunohistochemical staining of FFPE human brain tissue using PKC Iota Antibody / PRKCI Antibody, clone PRKCI/4912. PRKCI expression is observed as predominantly cytoplasmic staining throughout neural cells, consistent with its established roles in neuronal polarity, intracellular signaling, and maintenance of cellular architecture. Heat-induced epitope retrieval was performed using pH 9 Tris-EDTA buffer for 20 minutes prior to immunostaining.



SDS-PAGE analysis of purified, BSA-free PKC iota antibody (clone PRKCI/4912) as confirmation of integrity and purity.

Description

PKC Iota Antibody / PRKCI Antibody recognizes protein kinase C iota (PRKCI), an atypical member of the protein kinase C family that regulates cell polarity, proliferation, survival, migration, and differentiation. Unlike conventional protein kinase C isoforms, PRKCI is activated independently of calcium and diacylglycerol, instead functioning through phosphorylation events and protein-protein interactions. Its broad involvement in intracellular signaling has made PRKCI an important target for studies of epithelial biology, development, and cancer. PKC Iota Antibody / PRKCI Antibody is widely used to investigate the localization and expression of this highly conserved serine/threonine kinase.

PRKCI is a central component of the PAR3-PAR6-PRKCI polarity complex, which establishes apical-basal polarity in epithelial cells and regulates asymmetric cell division. Through these interactions, PRKCI influences cytoskeletal organization, tight junction formation, vesicle trafficking, and tissue morphogenesis. These functions are essential during embryonic development and remain critical for maintaining normal tissue architecture throughout adult life. Disruption of PRKCI signaling can impair epithelial integrity and contribute to abnormal cell behavior.

In addition to its structural functions, PRKCI integrates signaling downstream of phosphoinositide 3-kinase, AKT, small GTPases, and additional pathways controlling cell growth and survival. Elevated PRKCI activity has been reported in numerous human cancers, where it promotes tumor cell proliferation, migration, invasion, and resistance to apoptosis. As a result, PRKCI has emerged as both a useful biomarker and a potential therapeutic target across multiple cancer types, while continuing to play important roles in developmental biology and cell signaling research.

NSJ Bioreagents' PKC Iota Antibody / PRKCI Antibody, clone PRKCI/4912, has been validated for immunohistochemistry and demonstrates excellent specificity by Human Protein Microarray analysis, providing confidence in selective target recognition. Supported by robust validation and suitable for studies of signal transduction, epithelial polarity, and oncology, PKC Iota Antibody / PRKCI Antibody offers researchers a reliable tool for detecting PRKCI expression in normal and diseased tissues.

Learn more about PRKCI biology, signaling functions, and additional validated products on our PRKCI Antibody page.

Application Notes

Optimal dilution of the PKC Iota Antibody / PRKCI Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 100-300 was used as the immunogen for the PKC iota antibody.

Storage

Aliquot the PKC iota antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PKC iota antibody, PRKCI antibody, Protein Kinase C Iota antibody, Atypical Protein Kinase C antibody, Protein Kinase C Lambda/Iota antibody, aPKC antibody

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