Datasheet for ABIN7180077

anti-PKC gamma antibody (Thr655)

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Overview

Quantity:	100 µL
Target:	PKC gamma (PRKCG)
Binding Specificity:	Thr655
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PKC gamma antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	Synthesized non-phosphopeptide derived from Human PRKCG around the phosphorylation site of threonine 655 (A-L-T(p)-P-P).
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Target Details

Target:	PKC gamma (PRKCG)
Alternative Name:	PRKCG (PRKCG Products)

Target Details

Background:	Background: Calcium-activated, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that plays diverse roles in neuronal cells and eye tissues, such as regulation of the neuronal receptors GRIA4/GLUR4 and GRIN1/NMDAR1, modulation of receptors and neuronal functions related to sensitivity to opiates, pain and alcohol, mediation of synaptic function and cell survival after ischemia, and inhibition of gap junction activity after oxidative stress. Binds and phosphorylates GRIA4/GLUR4 glutamate receptor and regulates its function by increasing plasma membrane-associated GRIA4 expression. In primary cerebellar neurons treated with the agonist 3,5-dihyidroxyphenylglycine, functions downstream of the metabotropic glutamate receptor GRM5/MGLUR5 and phosphorylates GRIN1/NMDAR1 receptor which plays a key role in synaptic plasticity, synaptogenesis, excitotoxicity, memory acquisition and learning. May be involved in the regulation of hippocampal long-term potentiation (LTP), but may be not necessary for the process of synaptic plasticity. May be involved in desensitization of mu-type opioid receptor-mediated G-protein activation in the spinal cord, and may be critical for the development and/or maintenance of morphine-induced reinforcing effects in the limbic forebrain. May modulate the functionality of mu-type-opioid receptors by participating in a signaling pathway which leads to the phosphorylation and degradation of opioid receptors. May also contributes to chronic morphine-induced changes in nociceptive processing. Plays a role in neuropathic pain mechanisms and contributes to the maintenance of the allodynia pain produced by peripheral inflammation. Plays an important role in initial sensitivity and tolerance to ethanol, by mediating the behavioral effects of ethanol as well as the effects of this drug on the GABA(A) receptors. During and after cerebral ischemia modulate neurotransmission and cell survival in synaptic membranes, and is involved in insulin-induced inhibition of necrosis, an important mechanism for minimizing ischemic injury. Required for the elimination of multiple climbing fibers during innervation of Purkinje cells in developing cerebellum. Is activated in lens epithelial cells upon hydrogen peroxide treatment, and phosphorylates connexin-43 (GJA1/CX43), resulting in disassembly of GJA1 gap junction plaques and inhibition of gap junction activity which could provide a protective effect against oxidative stress By similarity. Phosphorylates p53/TP53 and promotes p53/TP53-dependent apoptosis in response to DNA damage. Soltoff S.P., Cell 121:271-280(2005). Comb M.J., Cell 131:1190-1203(2007). Mann M., Mol. Cell 31:438-448(2008) Aliases: KPCG_HUMAN antibody, MGC57564 antibody, OTTHUMP00000067291 antibody, PKC-gamma antibody, PKCC antibody, PKCG antibody, PRKCG antibody, Protein kinase C gamma antibody, Protein kinase C gamma polypeptide antibody, Protein kinase C gamma type

Target Details

	antibody, Protein kinase C, gamma antibody, SCA 14 antibody, SCA14 antibody
UniProt:	P05129
Pathways:	WNT Signaling, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Thyroid Hormone Synthesis, Myometrial Relaxation and Contraction, G-protein mediated Events, Positive Regulation of Response to DNA Damage Stimulus, Interaction of EGFR with phospholipase C-gamma, Thromboxane A2 Receptor Signaling, VEGF Signaling

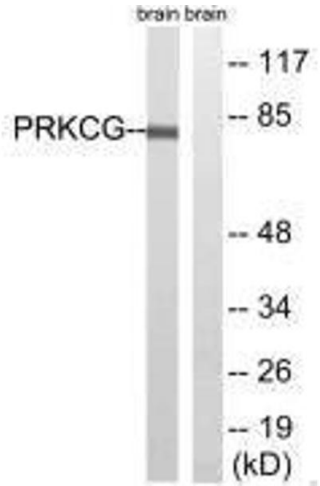
Application Details

Application Notes:	WB:1:500-1:3000,
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
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,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Western Blotting

Image 1. Western blot analysis of extracts from Rat brain cells, using PRKCG(Ab-655) antibody.