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PKC eta Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7020a

Product Information

Application	WB, IHC-P, E
Primary Accession	P24723
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1023
Calculated MW	77828
Antigen Region	210-239

Additional Information

Gene ID	5583
Other Names	Protein kinase C eta type, PKC-L, nPKC-eta, PRKCH, PKCL, PRKCL
Target/Specificity	This PKC eta antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 210-239 amino acids from the N-terminal region of human PKC eta.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PKC eta Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRKCH
Synonyms	PKCL, PRKCL
Function	Calcium-independent, phospholipid- and diacylglycerol (DAG)- dependent serine/threonine-protein kinase that is involved in the regulation of cell

differentiation in keratinocytes and pre-B cell receptor, mediates regulation of epithelial tight junction integrity and foam cell formation, and is required for glioblastoma proliferation and apoptosis prevention in MCF-7 cells. In keratinocytes, binds and activates the tyrosine kinase FYN, which in turn blocks epidermal growth factor receptor (EGFR) signaling and leads to keratinocyte growth arrest and differentiation. Associates with the cyclin CCNE1- CDK2-CDKN1B complex and inhibits CDK2 kinase activity, leading to RB1 dephosphorylation and thereby G1 arrest in keratinocytes. In association with RALA activates actin depolymerization, which is necessary for keratinocyte differentiation. In the pre-B cell receptor signaling, functions downstream of BLNK by up-regulating IRF4, which in turn activates L chain gene rearrangement. Regulates epithelial tight junctions (TJs) by phosphorylating occludin (OCLN) on threonine residues, which is necessary for the assembly and maintenance of TJs. In association with PLD2 and via TLR4 signaling, is involved in lipopolysaccharide (LPS)-induced RGS2 down-regulation and foam cell formation. Upon PMA stimulation, mediates glioblastoma cell proliferation by activating the mTOR pathway, the PI3K/AKT pathway and the ERK1-dependent phosphorylation of ELK1. Involved in the protection of glioblastoma cells from irradiation-induced apoptosis by preventing caspase-9 activation. In camptothecin-treated MCF-7 cells, regulates NF-kappa-B upstream signaling by activating IKBKB, and confers protection against DNA damage-induced apoptosis. Promotes oncogenic functions of ATF2 in the nucleus while blocking its apoptotic function at mitochondria. Phosphorylates ATF2 which promotes its nuclear retention and transcriptional activity and negatively regulates its mitochondrial localization.

Cellular Location Cytoplasm.

Tissue Location Most abundant in lung, less in heart and skin.

Background

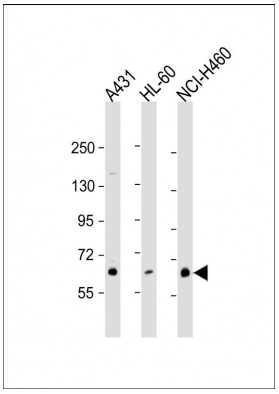
Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role in cells. PKC eta is one of the PKC family members. This protein is most abundant in lung, less in heart and skin.

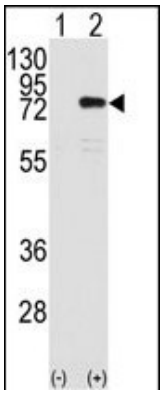
References

Palmer, R.H., et al., FEBS Lett. 356(1):5-8 (1994).
Bacher, N., et al., Mol. Cell. Biol. 11(1):126-133 (1991).
Bacher, N., et al., Mol. Cell. Biol. 12 (3), 1404 (1992).

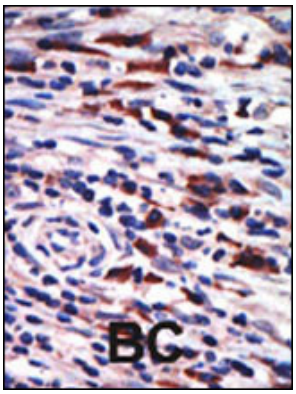
Images

All lanes : Anti-PKC eta Antibody (N-term) at 1:1000 dilution Lane 1: A431 whole cell lysate Lane 2: HL-60 whole cell lysate Lane 3: NCI-H460 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 78 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





Western blot analysis of PRKCH (arrow) using PKC eta Antibody (N-term) (Cat.#AP7020a).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PRKCH gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.