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PPP2R5C Rabbit pAb

Catalog # AP97521

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q13362
Other Accession	Q13362
Reactivity	Rat, Mouse
Predicted	Human, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61061
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PPP2R5C
Epitope Specificity	390-435/524
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the phosphatase 2A regulatory subunit B56 family.
SUBUNIT	PP2A consists of a common heterodimeric core enzyme, composed of PPP2CA a 36 kDa catalytic subunit (subunit C) and PPP2R1A a 65 kDa constant regulatory subunit (PR65 or subunit A), that associates with a variety of regulatory subunits. Proteins that associate with the core dimer include three families of regulatory subunits B (the R2/B/PR55/B55, R3/B''/PR72/PR130/PR59 and R5/B'/B56 families), the 48 kDa variable regulatory subunit, viral proteins, and cell signaling molecules. Interacts with PPP2CA AND PPP2R1A; the interaction is direct. Interacts with SGOL1; the interaction is direct. Isoform 1 and isoform 2 interact with TP53 (phosphorylated at Ser-15 by ATM); increased upon DNA damage it drives PP2A-mediated dephosphorylation of TP53 at Thr-55. Interacts with IER3 and/or ERK kinases; regulates ERK dephosphorylation.
Post-translational modifications	Isoform Gamma-3 is phosphorylated on serine residues. Isoform Gamma-1 phosphorylation by ERK2 is IER3-dependent and inhibits ERK dephosphorylation by PP2A-PPP2R5C.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	In eukaryotes, the phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions, including division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the protein phosphatases. In general, the protein phosphatase (PP) holoenzyme is a trimeric complex composed of a regulatory subunit, a variable subunit, and a catalytic subunit. Four major families of protein phosphatase catalytic subunits have been identified, designated PP1, PP2A, PP2B (calcineurin) and PP2C. An additional protein phosphatase catalytic subunit, PPX (also known as PP4) is a putative member of a novel PP family. The PP2A family comprises subfamily members PP2A Alpha and PP2A Beta. The PP2A catalytic subunit associates with a variety of regulatory subunits. Regulatory subunits include PP2A-A-Alpha and -A-Beta, PP2A-B-Alpha and -B-Beta, PP2A-C-Alpha and

-C-Beta, PP2A-B56-Alpha, -B56-Beta, -B56-gamma and -B56-Delta.

Additional Information

Gene ID	5527
Other Names	2A5G_HUMAN; PPP2R5C; PP2A B subunit isoform B'-gamma; PP2A B subunit isoform B56-gamma; PP2A B subunit isoform PR61-gamma; PP2A B subunit isoform R5-gamma; Renal carcinoma antigen NY-REN-29; KIAA0044; 2A5G_MOUSE; PP2A B subunit isoform B'-alpha-3; 2A5G_RABIT; PP2A B subunit isoform B'-beta; protein phosphatase 2 regulatory subunit B'gamma; protein phosphatase 2, regulatory subunit B (B56), gamma isoform; serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit gamma isoform
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	PPP2R5C
Synonyms	KIAA0044
Function	The B regulatory subunit might modulate substrate selectivity and catalytic activity, and might also direct the localization of the catalytic enzyme to a particular subcellular compartment. The PP2A- PPP2R5C holoenzyme may specifically dephosphorylate and activate TP53 and play a role in DNA damage-induced inhibition of cell proliferation. PP2A-PPP2R5C may also regulate the ERK signaling pathway through ERK dephosphorylation.
Cellular Location	Nucleus. Chromosome, centromere.
Tissue Location	Highest levels in heart, skeletal muscle and brain. Lower levels in pancreas, kidney, lung and placenta. Very low levels in liver

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