



Rabbit Anti-PPP2R5C antibody

SL11991R

Product Name PPP2R5C

Chinese Name 蛋白质磷酸酶 2 调节亚基 5C/PP2A-B56- γ 抗体

Alias 2A5G_HUMAN; B' alpha regulatory subunit; B56G; KIAA0044; MGC23064; PP2A B subunit B' gamma isoform; PP2A B subunit B56 gamma isoform; PP2A B subunit isoform B"-gamma; PP2A B subunit isoform B56-gamma; PP2A B subunit isoform PR61-gamma; PP2A B subunit isoform R5-gamma; PP2A B subunit PR61 gamma isoform; PP2A B subunit R5 gamma isoform; Ppp2r5c; PR61G; Protein phosphatase 2 regulatory subunit B (B56) gamma isoform; Protein phosphatase 2 regulatory subunit B' gamma; Renal carcinoma antigen NY REN 29; Renal carcinoma antigen NY-REN-29; Serine/threonine protein phosphatase 2A 56 kDa regulatory subunit gamma isoform; Serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit gamma isoform; 2A5G_HUMAN.

Research Area Cell biology Neurobiology Signal transduction Kinases and Phosphatases

Immunogen Species Rabbit

Clonality Polyclonal

React Species Mouse, Rat, (predicted: Human, Dog, Cow, Horse, Rabbit, Sheep,)
WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 61kDa

Cellular localization The nucleus

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human PPP2R5C: 390-435/524

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution

1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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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.

Product Detail

Function:

The B regulatory subunit might modulate substrate selectivity and catalytic activity, and also might 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.

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.

Subcellular Location:

Nucleus. Chromosome. centromere.

Tissue Specificity:

Highest levels in heart, skeletal muscle and brain. Lower levels in pancreas, kidney, lung and placenta. Very low levels in liver.

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.

Similarity:

Belongs to the phosphatase 2A regulatory subunit B56 family.

SWISS:

Q13362

Gene ID:

5527

Database links:

[Entrez Gene: 5527](#) Human

[Entrez Gene: 26931](#) Mouse

[Entrez Gene: 691318](#) Rat

[Omim: 601645](#) Human

[SwissProt: Q13362](#) Human

[SwissProt: Q60996](#) Mouse

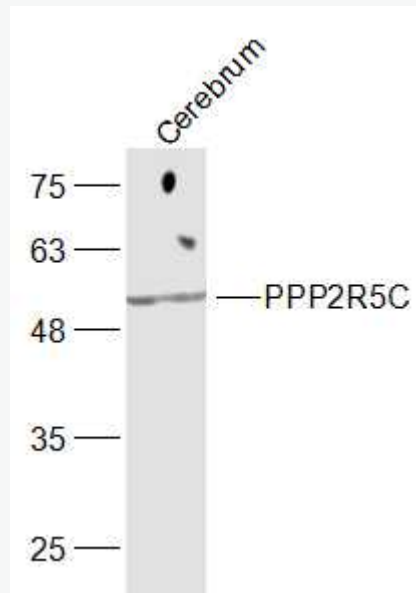
[SwissProt: Q28651](#) Rabbit

[Unigene: 368264](#) Human

[Unigene: 240396](#) Mouse

[Unigene: 458056](#) Mouse

**Product
Picture**



Sample:

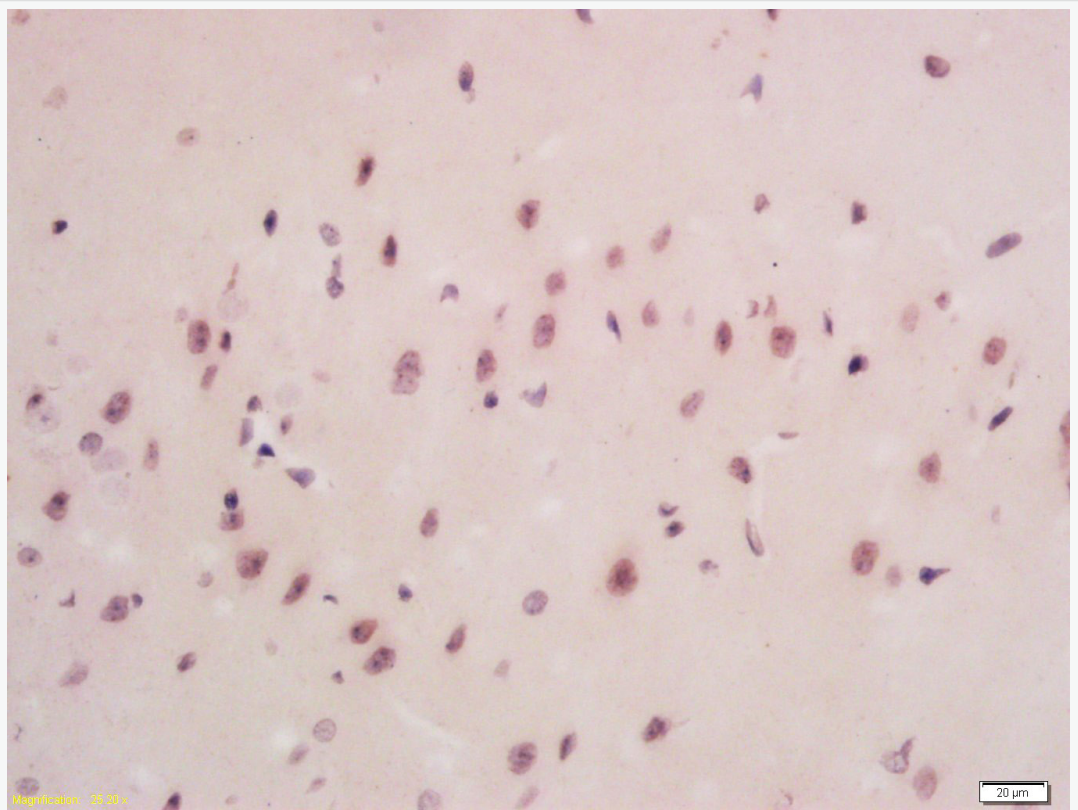
Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti-PPP2R5C (SL11991R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 61 kD

Observed band size: 52 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block
endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer
(normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-PPP2R5C Polyclonal Antibody, Unconjugated(SL11991R)
1:200, overnight at 4°C, followed by conjugation to the secondary
antibody(SP-0023) and DAB(C-0010) staining