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PPP2R2B/PP2A-B55 Rabbit pAb

Catalog # AP99634

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q00005
Other Accession	Q00005
Reactivity	Rat, Mouse
Predicted	Pig, Human, Rabbit, Chicken, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51710
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PPP2R2B/PP2A-B55
Epitope Specificity	51-130/443
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 B family. Contains 7 WD repeats.
SUBUNIT	PP2A consists of a common heterodimeric core enzyme,composed of a 36 kDa catalytic subunit (subunit C) and a 65 kDaconstant regulatory subunit (PR65 or subunit A), that associateswith a variety of regulatory subunits. Proteins that associate withthe core dimer include three families of regulatory subunits B (theR2/B/PR55/B55, R3/B''/PR72/PR130/PR59 and R5/B'/B56 families), the48 kDa variable regulatory subunit, viral proteins, and cellsignaling molecules.
DISEASE	Defects in PPP2R2B are the cause of spinocerebellar ataxia type 12 (SCA12) [MIM:604326]. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA12 is an autosomal dominant cerebellar ataxia (ADCA).
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 □and PP2A∫. The PP2A catalytic subunit associates with a variety of regulatory subunits. The B family of regulatory subunits (including B55, B56 and PR72/130 subfamilies) is believed to participate in

substrate specificity and catalytic activity. PP2A-B55, also known as PP2A regulatory subunit subfamily B55 or PP2A-B1, is a B subfamily consisting of four B55 isoforms (Alpha,Beta, Gamma and Delta) encoded by four distinct genes.

Additional Information

Gene ID	5521
Other Names	B55BETA; PP2AB55BETA; PP2ABBETA; PP2APR55B; PP2APR55BETA; PR2AB55BETA; PR2ABBETA; PR2APR55BETA; PR52B; PR55-BETA; PR55BETA; SCA12; 2900026H06Rik; 6330404L05Rik; E130009M08Rik; PP2A-PR55B; Pppr2b2; 2ABB_HUMAN; PPP2R2B; PP2A subunit B isoform B55-beta; PP2A subunit B isoform PR55-beta; PP2A subunit B isoform R2-beta; PP2A subunit B isoform beta; 2ABB_MOUSE; 2ABB_RAT; PP2A subunit B isoform BRB; protein phosphatase 2 regulatory subunit Bbeta; spinocerebellar ataxia 12; protein phosphatase 2 (formerly 2A), regulatory subunit B (PR 52), beta 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	PPP2R2B
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. Within the PP2A holoenzyme complex, isoform 2 is required to promote proapoptotic activity (By similarity). Isoform 2 regulates neuronal survival through the mitochondrial fission and fusion balance (By similarity).
Cellular Location	[Isoform 1]: Cytoplasm. Cytoplasm, cytoskeleton. Membrane
Tissue Location	Brain.

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