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GRIN2C Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19779c

Product Information

Application	WB, E
Primary Accession	Q14957
Other Accession	NP_000826.2
Reactivity	Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB40514
Calculated MW	134209
Antigen Region	567-595

Additional Information

Gene ID	2905
Other Names	Glutamate receptor ionotropic, NMDA 2C, GluN2C, Glutamate [NMDA] receptor subunit epsilon-3, N-methyl D-aspartate receptor subtype 2C, NMDAR2C, NR2C, GRIN2C, NMDAR2C
Target/Specificity	This GRIN2C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 567-595 amino acids from the Central region of human GRIN2C.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	GRIN2C Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GRIN2C (HGNC:4587)
Synonyms	NMDAR2C

Function	Component of N-methyl-D-aspartate (NMDA) receptors (NMDARs) that function as heterotetrameric, ligand-gated cation channels with high calcium permeability and voltage-dependent block by Mg(2+) (PubMed:26875626, PubMed:36309015). Participates in synaptic plasticity for learning and memory formation by contributing to the slow phase of excitatory postsynaptic current and long-term synaptic potentiation (By similarity). Channel activation requires binding of the neurotransmitter L-glutamate to the GluN2 subunit, glycine or D-serine binding to the GluN1 subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:26875626, PubMed:36309015). NMDARs mediate simultaneously the potassium efflux and the influx of calcium and sodium (By similarity). Each GluN2 subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, Ca2(+) permeability, and binding to allosteric modulators (PubMed:26875626).
Cellular Location	Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane; Multi-pass membrane protein
Tissue Location	Mainly expressed in brain with predominant expression is in the cerebellum, also present in the hippocampus, amygdala, caudate nucleus, corpus callosum, subthalamic nuclei and thalamus. Detected in the heart, skeletal muscle and pancreas

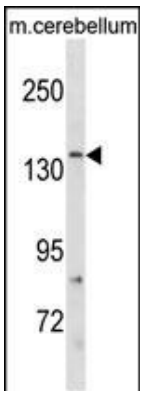
Background

N-methyl-D-aspartate (NMDA) receptors are a class of ionotropic glutamate receptors. NMDA channel has been shown to be involved in long-term potentiation, an activity-dependent increase in the efficiency of synaptic transmission thought to underlie certain kinds of memory and learning. NMDA receptor channels are heteromers composed of the key receptor subunit NMDAR1 (GRIN1) and 1 or more of the 4 NMDAR2 subunits: NMDAR2A (GRIN2A), NMDAR2B (GRIN2B), NMDAR2C (GRIN2C), and NMDAR2D (GRIN2D). [provided by RefSeq].

References

Need, A.C., et al. Eur. J. Hum. Genet. 17(7):946-957(2009)
Tabakoff, B., et al. BMC Biol. 7, 70 (2009) :
Shi, J., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 147B (7), 1270-1277 (2008) :
Self, R.L., et al. Brain Res. 995(1):39-45(2004)
Krapivinsky, G., et al. Neuron 40(4):775-784(2003)

Images



GRIN2C Antibody (Center) (Cat. #AP19779c) western blot analysis in mouse cerebellum tissue lysates (35ug/lane).This demonstrates the GRIN2C antibody detected the GRIN2C protein (arrow).

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