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NMDAR3A Rabbit pAb

Catalog # AP96893

Product Information

Application	WB
Primary Accession	O60391
Other Accession	O60391
Reactivity	Mouse
Predicted	Rat, Human, Rabbit, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	112992
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NMDAR3A/NR3A
Epitope Specificity	531-630/1115
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 glutamate-gated ion channel (TC 1.A.10.1) family. NR3A/GRIN3A subfamily.
SUBUNIT	Forms heteromeric channel of a zeta subunit (GRIN1), a epsilon subunit (GRIN2A, GRIN2B, GRIN2C or GRIN2D) and a third subunit (GRIN3A or GRIN3B). Does not form functional homomeric channels. Found in a complex with GRIN1, GRIN2A or GRIN2B and PPP2CB. Probably interacts with PPP2CB. No complex with PPP2CB is detected when NMDARs are stimulated by NMDA
Post-translational modifications	N-glycosylated
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Glutamate receptors mediate most excitatory neurotransmission in the brain and play an important role in neural plasticity, neural development and neuro-degeneration. Ionotropic glutamate receptors are categorized into NMDA receptors and kainate/AMPA receptors, both of which contain glutamate-gated, cation-specific ion channels. Kainate/AMPA receptors co-localize with NMDA receptors in many synapses and consist of seven structurally related subunits designated GluR-1 to 7. The kainate/AMPA receptors are primarily responsible for fast excitatory neurotransmission by glutamate, whereas the NMDA receptors exhibit slow kinesis of Ca2+ ions and a high permeability for Ca2+ ions. One such NMDA receptor, NR3B, is expressed in motor neurons and forms cation channels impermeable to calcium, which can resist many open-channel blockers. NR3B functions in the brain as an excitatory glycine receptor, modifying the normal role of glycine as an inhibitory neurotransmitter.

Additional Information

116444

Gene ID	
Other Names	GluN3A; NMDAR-L; NMDAR3A; NR3A; GluN3B; NR3B; NMD3B_HUMAN; GRIN3B; N-methyl-D-aspartate receptor subtype 3B (NMDAR3B | NR3B); NMD3A_HUMAN; GRIN3A; N-methyl-D-aspartate receptor subtype 3A (NMDAR3A | NR3A); KIAA1973; glutamate ionotropic receptor NMDA type subunit 3B; glutamate receptor, ionotropic, N-methyl-D-aspartate 3B
Dilution	WB=1:500-2000
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	GRIN3B (HGNC:16768)
Function	Component of a non-conventional N-methyl-D-aspartate (NMDA) receptors (NMDARs) that function as heterotetrameric, ligand-gated cation channels with low calcium permeability and low voltage-dependent block by Mg(2+) (By similarity). Forms glutamatergic receptor complexes with GluN1 and GluN2 subunits which are activated by glycine binding to the GluN1 and GluN3 subunits and L-glutamate binding to GluN2 subunits (By similarity). Forms excitatory glycinergic receptor complexes with GluN1 alone which are activated by glycine binding to the GluN1 and GluN3 subunits. GluN3B subunit also binds D-serine and, in the absence of glycine, activates glycinergic receptor complexes, but with lower efficacy than glycine (By similarity). Each GluN3 subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, Ca2(+) permeability, and binding to allosteric modulators (By similarity).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q91ZU9}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q13224} Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q91ZU9} Note=Requires the presence of GRIN1 to be targeted at the plasma membrane. {ECO:0000250|UniProtKB:Q91ZU9}

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