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Goat anti-GRIN2A (aa211-224) Antibody

Peptide-affinity purified goat antibody
Catalog # AF4539a

Product Information

Application	IF, Pep-ELISA
Primary Accession	Q12879
Other Accession	NP_000824.1, NP_001127880.1
Reactivity	Human, Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Clone Names	GRIN2A
Calculated MW	165283

Additional Information

Gene ID	2903
Other Names	GRIN2A; glutamate receptor, ionotropic, N-methyl D-aspartate 2A; NMDAR2A; NR2A; N-methyl D-aspartate receptor subtype 2A; N-methyl-D-aspartate receptor channel, subunit epsilon-1; N-methyl-D-aspartate receptor subunit 2A; NMDA receptor subtype 2A; OTTHUMP
Dilution	IF~~1:50~200 Pep-ELISA~~N/A
Format	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
Immunogen	This antibody is expected to recognize both reported isoforms (NP_000824.1; NP_001127880.1). The immunizing peptide represents part of an extra-cellular domain. Reported variants represent identical protein: NP_001127879.1, NP_000824.1
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Goat anti-GRIN2A (aa211-224) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GRIN2A (HGNC:4585)
Synonyms	NMDAR2A

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:20890276, PubMed:23933818, PubMed:23933819, PubMed:23933820, PubMed:24504326, PubMed:26875626, PubMed:26919761, PubMed:28242877, PubMed:36117210, PubMed:38538865, PubMed:8768735). NMDARs participate in synaptic plasticity for learning and memory formation by contributing to the slow phase of excitatory postsynaptic current, long-term synaptic potentiation, and learning (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:23933818, PubMed:23933819, PubMed:23933820, PubMed:24504326, PubMed:26875626, PubMed:26919761, PubMed:27288002, PubMed:28095420, PubMed:28105280, PubMed:28126851, PubMed:28182669, PubMed:29644724, PubMed:38307912, PubMed:8768735). 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, PubMed:26919761). Participates in the synaptic plasticity regulation through activation by the L- glutamate releaseed by BEST1, into the synaptic cleft, upon F2R/PAR-1 activation in astrocyte (By similarity).
Cellular Location	Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q00959}. Cell membrane; Multi-pass membrane protein. Synapse {ECO:0000250|UniProtKB:P35436} Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q00959}; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P35436}. Note=Expression at the dendrite cell membrane and at synapses is regulated by SORCS2 and the retromer complex. {ECO:0000250|UniProtKB:P35436}

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