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Anti-NMDAR2A Rabbit Monoclonal Antibody

Catalog # ABO15177

Product Information

Application	WB
Primary Accession	Q12879
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-NMDAR2A Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	2903
Other Names	Glutamate receptor ionotropic, NMDA 2A, GluN2A, Glutamate [NMDA] receptor subunit epsilon-1, N-methyl D-aspartate receptor subtype 2A, NMDAR2A, NR2A, hNR2A, GRIN2A (HGNC:4585), NMDAR2A
Calculated MW	165283
Application Details	WB 1:500-1:2000
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 17G53
Immunogen	A synthesized peptide derived from human NMDAR2A
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

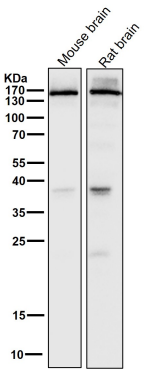
Name	GRIN2A (HGNC:4585)
Synonyms	NMDAR2A
Function	Component of N-methyl-D-aspartate (NMDA) receptors (NMDARs) that function as heterotetrameric, ligand-gated cation channels with high calcium

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).

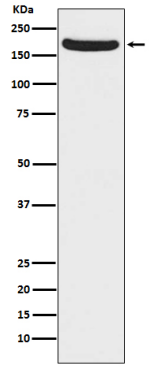
Cellular Location

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}

Images



All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



Western blot analysis of NMDAR2A expression in mouse brain lysate.

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