

GRIN2D Polyclonal Antibody

Catalog # AP74331

Product Information

Application	WB
Primary Accession	<u>015399</u>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	143752

Additional Information

Gene ID	2906
Other Names	Glutamate [NMDA] receptor subunit epsilon-4 (EB11) (N-methyl D-aspartate receptor subtype 2D) (NMDAR2D) (NR2D)
Dilution	WB~~WB 1:500-2000, ELISA 1:10000-20000
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

Protein Information

Name	GRIN2D {ECO:0000303 PubMed:27616483, ECO:0000312 HGNC:HGNC:4588}
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: <u>26875626</u> , PubMed: <u>27616483</u> , PubMed: <u>28126851</u> , PubMed: <u>9489750</u>). Participates in synaptic plasticity for learning and memory formation (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: <u>26875626</u> , PubMed: <u>27616483</u> , PubMed: <u>28126851</u> , PubMed: <u>9489750</u>). NMDARs mediate simultaneously the potasium 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: <u>26875626</u> , PubMed: <u>28095420</u> , PubMed: <u>28126851</u> , PubMed: <u>9489750</u>).
Cellular Location	Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane;

Background

Component of NMDA receptor complexes that function as heterotetrameric, ligand-gated ion channels with high calcium permeability and voltage-dependent sensitivity to magnesium. Channel activation requires binding of the neurotransmitter glutamate to the epsilon subunit, glycine binding to the zeta subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:<u>9489750</u>, PubMed:<u>27616483</u>, PubMed:<u>26875626</u>, PubMed:<u>28126851</u>). Sensitivity to glutamate and channel kinetics depend on the subunit composition (PubMed:<u>9489750</u>).

Images



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