Product Name: NMDAζ1 Rabbit Polyclonal Antibody
Catalog #: APRab14762

Summary

Production Name	NMDAζ1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,IHC,WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	GRIN1
Alternative Names	GRIN1; NMDAR1; Glutamate [NMDA] receptor subunit zeta-1; N-methyl-D-aspartate receptor subunit NR1; NMD-R1
Gene ID	2902.0
SwissProt ID	Q05586.The antiserum was produced against synthesized peptide derived from human NMDAR1. AA range:856-905

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.
Molecular Weight	105kD

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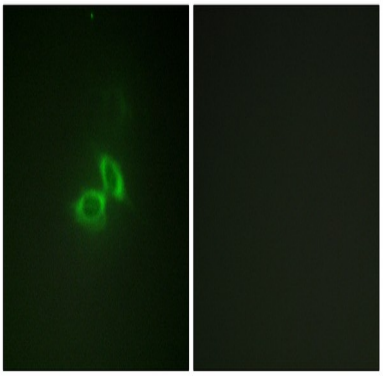
Background

The protein encoded by this gene is a critical subunit of N-methyl-D-aspartate receptors, members of the glutamate receptor channel superfamily which are heteromeric protein complexes with multiple subunits arranged to form a ligand-gated ion channel. These subunits play a key role in the plasticity of synapses, which is believed to underlie memory and learning. Cell-specific factors are thought to control expression of different isoforms, possibly contributing to the functional diversity of the subunits. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2008],function:NMDA receptor subtype of glutamate-gated ion channels with high calcium permeability and voltage-dependent sensitivity to magnesium. Mediated by glycine. This protein plays a key role in synaptic plasticity, synaptogenesis, excitotoxicity, memory acquisition and learning. It mediates neuronal functions in glutamate neurotransmission. Is involved in the cell surface targeting of NMDA receptors.,online information:NMDA receptor entry,PTM:NMDA is probably regulated by C-terminal phosphorylation of an isoform of NR1 by PKC. Dephosphorylated on Ser-897 probably by protein phosphatase 2A (PPP2CB). Its phosphorylated state is influenced by the formation of the NMDAR-PPP2CB complex and the NMDAR channel activity.,similarity:Belongs to the glutamate-gated ion channel (TC 1.A.10) family.,subcellular location:Enriched in post-synaptic plasma membrane and post-synaptic densities.,subunit:Forms heteromeric channel of a zeta subunit (GRIN1), a epsilon subunit (GRIN2A, GRIN2B, GRIN2C or GRIN2D) and a third subunit (GRIN3A or GRIN3B); disulfide-linked. Found in a complex with GRIN2A or GRIN2B, GRIN3A or GRIN3B and PPP2CB. Interacts with DLG4 and MPDZ.,

Research Area

Calcium;Neuroactive ligand-receptor interaction;Long-term potentiation;Alzheimer's disease;Amyotrophic lateral sclerosis (ALS);Huntington's disease;

Image Data



Immunofluorescence analysis of NIH/3T3 cells, using NMDAR1 Antibody. The picture on the right is blocked with the synthesized peptide.

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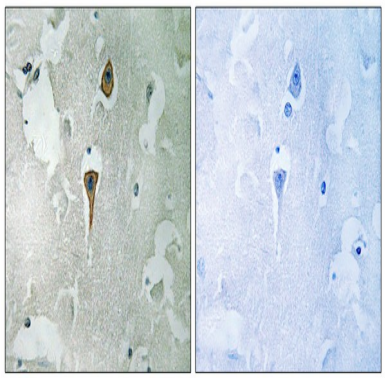
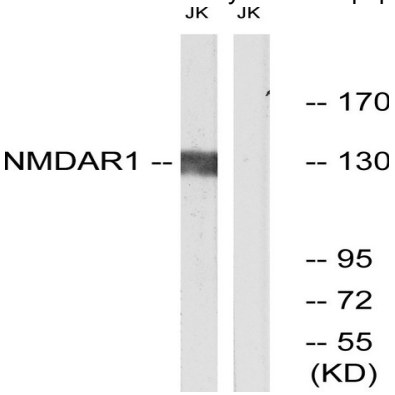


Immunohistochemistry analysis of paraffin-embedded human brain tissue, using NMDAR1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat cells, using NMDAR1 Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.