



# NMDA $\zeta$ 1 (phospho Ser890) Polyclonal Antibody

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>                  | YP-Ab-16358                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Reactivity</b>                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Applications</b>                | IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Gene Name</b>                   | GRIN1                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Immunogen</b>                   | The antiserum was produced against synthesized peptide derived from human NMDAR1 around the phosphorylation site of Ser890. AA range:856-905                                                                                                                                                                                                                                                                                 |
| <b>Specificity</b>                 | Phospho-NMDA $\zeta$ 1 (S890) Polyclonal Antibody detects endogenous levels of NMDA $\zeta$ 1 protein only when phosphorylated at S890.                                                                                                                                                                                                                                                                                      |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                        |
| <b>Dilution</b>                    | Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.                                                                                                                                                                                                                                                                                               |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>                      | $\geq 90\%$                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>                    | GluN1;Glutamate [NMDA] receptor subunit zeta-1;Glutamate receptor ionotropic N methyl D aspartate 1;Glutamate receptor ionotropic;N-methyl-D aspartate; subunit 1;NMDA 1;Grin1;MRD8;N methyl D aspartate receptor;N methyl D aspartate receptor channel subunit zeta 1;N methyl D aspartate receptor subunit NR1;N-methyl-D-aspartate receptor subunit NR1;NMD-R1;NMDA R1;NMDA receptor 1;NMDA1;NMDAR;NMDZ1_HUMAN;NR1;NMDAR1 |
| <b>Observed Band</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Calculated Molecular Weight</b> |                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Cell Pathway</b>                | Cell membrane ; Multi-pass membrane protein . Cell junction, synapse, postsynaptic cell membrane . Cell junction, synapse, postsynaptic density . Enriched in postsynaptic plasma membrane and postsynaptic densities. .                                                                                                                                                                                                     |
| <b>Tissue Specificity</b>          | Brain,Cerebellum,Hippocampus,                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Function</b>                    | 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:Fo

#### 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],

#### matters needing attention

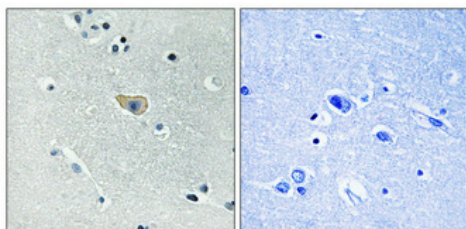
Avoid repeated freezing and thawing!

#### Usage suggestions

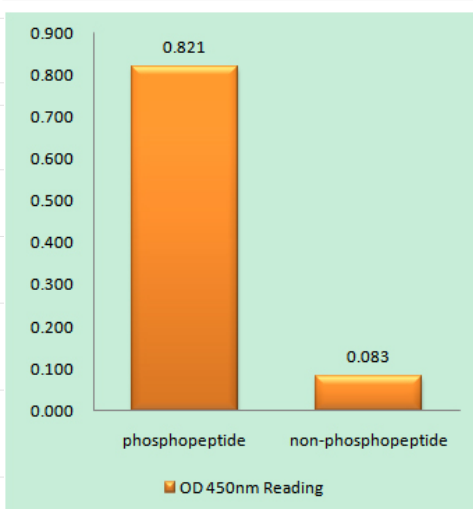
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



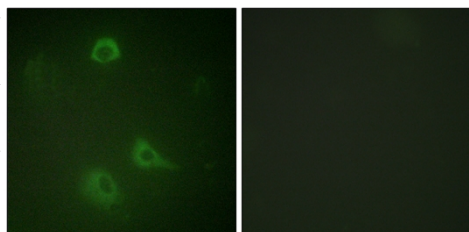
## Products Images



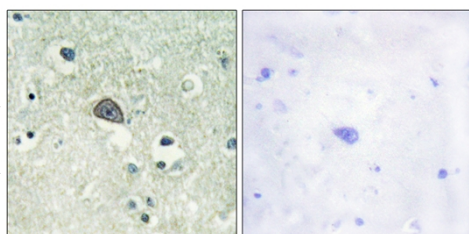
Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using NMDAR1 (Phospho-Ser890) Antibody



Immunofluorescence analysis of A549 cells, using NMDAR1 (Phospho-Ser890) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using NMDAR1 (Phospho-Ser890) Antibody. The picture on the right is blocked with the phospho peptide.