

## Product datasheet for **AP20960PU-M**

### **NMDAR1 (GRIN1) pSer896 Rabbit Polyclonal Antibody**

#### **Product data:**

|                         |  |
|-------------------------|--|
| Product Type:           | Primary Antibodies   |
| Applications:           | IHC  |
| Recommended Dilution:   | <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.  |
| Reactivity:             | Human, Mouse, Rat  |
| Host:                   | Rabbit   |
| Clonality:              | Polyclonal   |
| Immunogen:              | Synthetic phosphopeptide derived from Human NMDA $\zeta$ 1 around the phosphorylation site of Serine 896                                       |
| Specificity:            | This antibody detects endogenous levels of p-NMDAR1 protein.<br>(region surrounding Ser896)  |
| Formulation:            | Phosphate buffered saline (PBS), pH 7.2<br>State: Aff - Purified<br>State: Liquid purified Ig fraction<br>Preservative: 0.05% Sodium Azide     |
| Concentration:          | 1.0 mg/ml  |
| Purification:           | Affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen, purity is > 95% (by SDS-PAGE)             |
| Conjugation:            | Unconjugated   |
| Storage:                | Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.<br>Avoid repeated freezing and thawing.                           |
| Stability:              | Shelf life: one year from despatch.  |
| Predicted Protein Size: | ~105, 120 kDa  |
| Gene Name:              | glutamate ionotropic receptor NMDA type subunit 1  |
| Database Link:          | <a href="#">Entrez Gene 14810 Mouse</a> <a href="#">Entrez Gene 24408 Rat</a> <a href="#">Entrez Gene 2902 Human</a><br><a href="#">Q05586</a> |



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**Background:**

NMDA receptor subtype of glutamate-gated ion channels possesses high calcium permeability and voltage-dependent sensitivity to magnesium. Mediated by glycine. 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. The ion channels activated by glutamate are divided into two classes. Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR) while those activated by kainate and α-amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as kainate/AMPA receptors (K/AMPA). NMDA receptors are among the most studied receptors in neuroscience because they are involved in neuronal cell development and plasticity, a cellular correlate for learning. NMDA receptors are also implicated in several disorders of the central nervous system including epilepsy and ischemic neuronal cell death. NMDA receptors also appear to be a target for ethanol at physiological concentrations and therefore may play a significant role in alcoholism.

**Synonyms:**

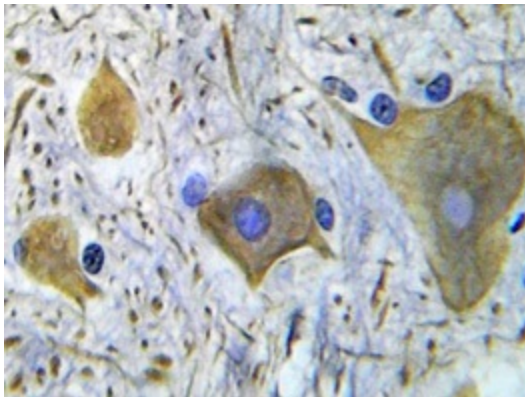
NMDAR1, GRIN1

**Protein Families:**

Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

**Protein Pathways:**

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

**Product images:**


Immunohistochemistry (IHC) analyzes of p-NMDAR1 antibody (Cat.-No.: [AP20960PU-N]) in paraffin-embedded human spinal cord tissue.