

## Product datasheet for **AP21091PU-S**

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

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 860-910 of Human NMDA $\zeta$ 1.
Specificity:	This antibody detects endogenous levels of NMDA $\zeta$ 1 protein. (region surrounding Phe891)
Formulation:	Phosphate buffered saline (PBS), pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. 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:	<u><a href="#">Entrez Gene 14810 Mouse</a></u> <u><a href="#">Entrez Gene 24408 Rat</a></u> <u><a href="#">Entrez Gene 2902 Human</a></u> <u><a href="#">Q05586</a></u>



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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  $\alpha$ -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.

**Synonyms:**

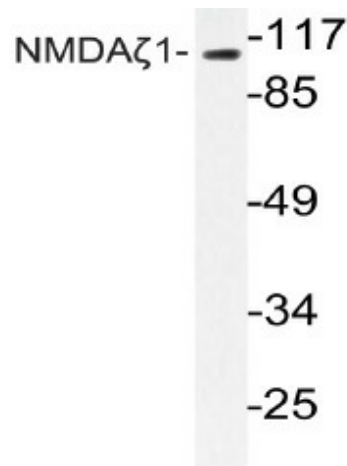
NMDAR1,GRIN1

**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:**

Western blot (WB) analyzes of NMDAR1 antibody (Cat.-No.: [AP21091PU-N]) in extracts from Jurkat cells.



Immunohistochemistry (IHC) analyzes of NMDAR1 antibody (Cat.-No.: [AP21091PU-N]) in paraffin-embedded human brain tissue.