

## Product datasheet for **AP23337PU-N**

### **NMDAR1 (GRIN1) (N-term) Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	IHC, WB
<b>Recommended Dilution:</b>	Western blot 1-2 µg/ml. Immunohistochemistry on paraffin sections 0.5-1 µg/ml.
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	A synthetic peptide corresponding to a sequence at the N-terminal of human NMDAR1
<b>Specificity:</b>	This antibody detects NMDA Receptor 1 (N-term). No cross reactivity with other proteins.
<b>Formulation:</b>	5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg Na <sub>3</sub> State: Aff - Purified State: Lyophilized Ig fraction
<b>Reconstitution Method:</b>	0.2ml of distilled water will yield a concentration of 500µg/ml.
<b>Purification:</b>	Immunogen affinity purified
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at 2 - 8 °C for up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	glutamate ionotropic receptor NMDA type subunit 1
<b>Database Link:</b>	<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 Q05586</a></u>



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**Background:**

The NMDA receptor (NMDAR) is a specific type of ionotropic glutamate receptor. NMDA (N-methyl D-aspartate) is the name of a selective agonist that binds to NMDA receptors but not to other glutamate receptors. Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. NMDAR1 gene is mapped to 9q34.3 and encodes a 938-amino acid protein which showed high evolutionary conservation in structure and physiologic properties. It consists of 21 exons distributed over about 31 kb. Three of the exons that are alternatively spliced in the rat and which produce 8 isoforms in that species were also present in the human sequence. The promoter region contained 2 DNA binding sites for the homeobox proteins 'even-skipped'. The gene is a candidate for the site of the mutation in torsion dystonia. The NMDA receptor is a non-specific cation channel and thus directly contributes to excitatory synaptic transmission by depolarizing the postsynaptic cell. NMDA receptors are modulated by a number of endogenous and exogenous compounds and play a key role in a wide range of physiologic and pathologic processes, such as excitotoxicity.

**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:**

NMDAR1 Polyclonal Antibody