

## Product datasheet for **AP55708PU-N**

### **NMDAR1 (GRIN1) pSer890 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IF, IHC
Recommended Dilution:	<b>Immunohistochemistry on paraffin sections:</b> 1:50~1:100. <b>Immunofluorescence:</b> 1:100~1:200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide sequence around phosphorylation site of Serine 890(A-S-S(p)-F-K) derived from Human NMDAR1 (KLH-conjugated)
Specificity:	The antibody detects endogenous levels of NMDAR1 only when phosphorylated at serine 890.
Formulation:	Rabbit IgG in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol State: Aff - Purified State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Affinity chromatography using epitope-specific peptide
Conjugation:	Unconjugated
Storage:	Upon receipt, store undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	120 kDa
Gene Name:	glutamate ionotropic receptor NMDA type subunit 1
Database Link:	<a href="#">Entrez Gene 2902 Human Q05586</a>



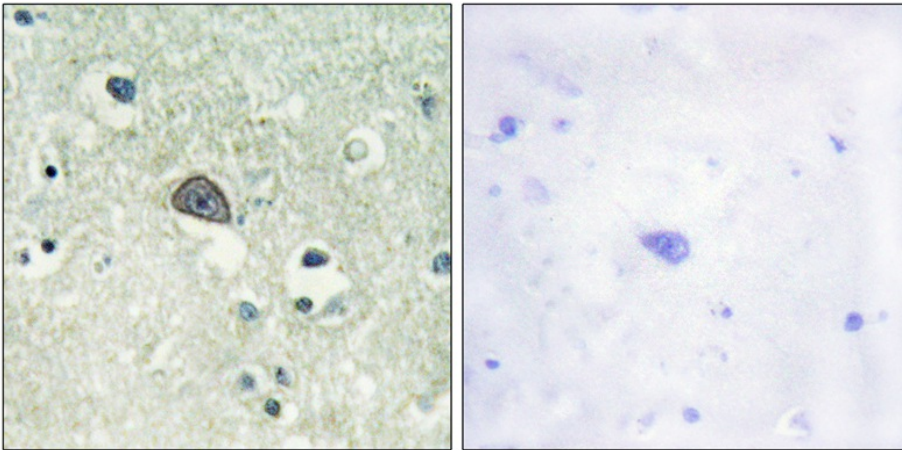
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**Background:**

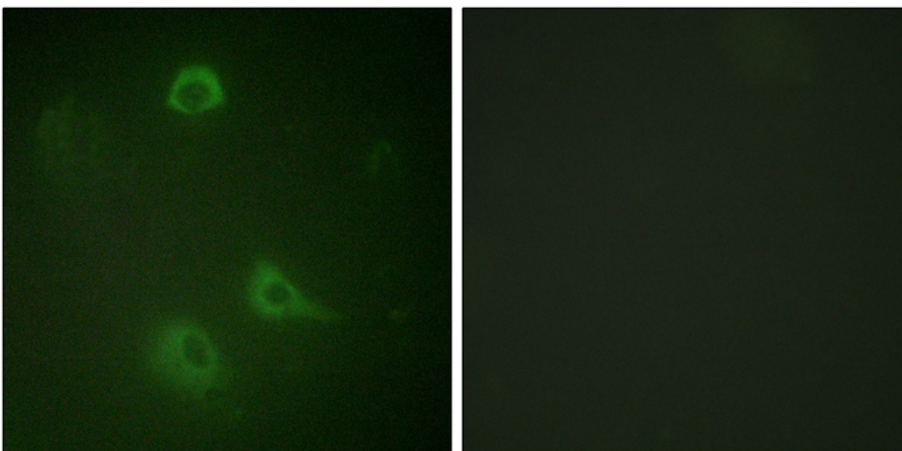
NMDA receptors are members of the ionotropic class of glutamate receptors, which also includes Kainate and AMPA receptors. NMDA receptors consist of NR1 subunits combined with one or more NR2 (A-D) or NR3 (A-B) subunits. The ligand-gated channel is permeable to cations including  $\text{Ca}^{2+}$ , and at resting membrane potentials NMDA receptors are inactive due to a voltage-dependent blockade of the channel pore by  $\text{Mg}^{2+}$ . NMDA receptor activation, which requires binding of glutamate and glycine, leads to an influx of  $\text{Ca}^{2+}$  into the postsynaptic region where it activates several signaling cascades, including pathways leading to the induction of long-term potentiation (LTP) and depression (LTD). NMDA receptors have a critical role in excitatory synaptic transmission and plasticity in the CNS. They govern a range of physiological conditions including neurological disorders caused by excitotoxic neuronal injury, psychiatric disorders and neuropathic pain syndromes.

**Synonyms:**

NMDAR1,GRIN1

**Product images:**

Immunohistochemical analysis of paraffin-embedded human brain tissue using NMDAR1 (Phospho-Ser890) antibody (left) or the same antibody preincubated with blocking peptide (right).



Immunofluorescence staining of methanol-fixed A549 cells using NMDAR1 (Phospho-Ser890) Antibody.