



Rabbit Anti-NMDAR1 antibody

SL2030R

Product Name:	NMDAR1
Chinese Name:	离子型谷氨酸受体1抗体
Alias:	NMDA-NR1; N-Methyl-d-Aspartate receptor 1; GRIN1; NMDA1; NR1; Glutamate [NMDA] receptor subunit zeta 1; Glutamate receptor ionotropic N methyl D aspartate 1; Grin 1; Grin1; N methyl D aspartate receptor channel; N-methyl-D-aspartate receptor; N-methyl-D-aspartate receptor subunit NR1; NMD-R1; NMDA 1; NMDA NR1; NMDA R1; NMDA receptor 1; NMDA1; NMDAR 1; NMDAR; NR 1; NMDZ1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg /testIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	103kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human NMDAR1:101-200/938<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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]

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.

Subunit:

Forms heteromeric channel of a zeta subunit (GRIN1), a epsilon subunit (GRIN2A, GRIN2B, GRIN2C or GRIN2D) and a third subunit (GRIN3A or GRIN3B); disulfide-linked. Found in a complex with GRIN2A or GRIN2B, GRIN3A or GRIN3B and PPP2CB. Interacts with DLG4 and MPDZ. Interacts with LRFN1 and LRFN2. Interacts with MYZAP.

Subcellular Location:

Cell membrane; Multi-pass membrane protein. Cell junction, synapse, postsynaptic cell membrane. Cell junction, synapse, postsynaptic cell membrane, postsynaptic density. Note=Enriched in post-synaptic plasma membrane and post-synaptic densities.

Post-translational modifications:

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.

DISEASE:

Defects in GRIN1 are the cause of mental retardation autosomal dominant type 8 (MRD8) [MIM:614254]. Mental retardation is characterized by significantly below average general intellectual functioning associated with impairments in adaptive behavior and manifested during the developmental period.

Similarity:

Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. NR1/GRIN1 subfamily.

SWISS:

Q05586

Gene ID:

2902

Database links:

[Entrez Gene: 2902](#) Human

[Entrez Gene: 14810](#) Mouse

[Entrez Gene: 24408](#) Rat

[Omim: 138249](#) Human

[SwissProt: Q05586](#) Human

[SwissProt: P35438](#) Mouse

[SwissProt: P35439](#) Rat

[Unigene: 558334](#) Human

[Unigene: 278672](#) Mouse

[Unigene: 9840](#) Rat

Important Note:

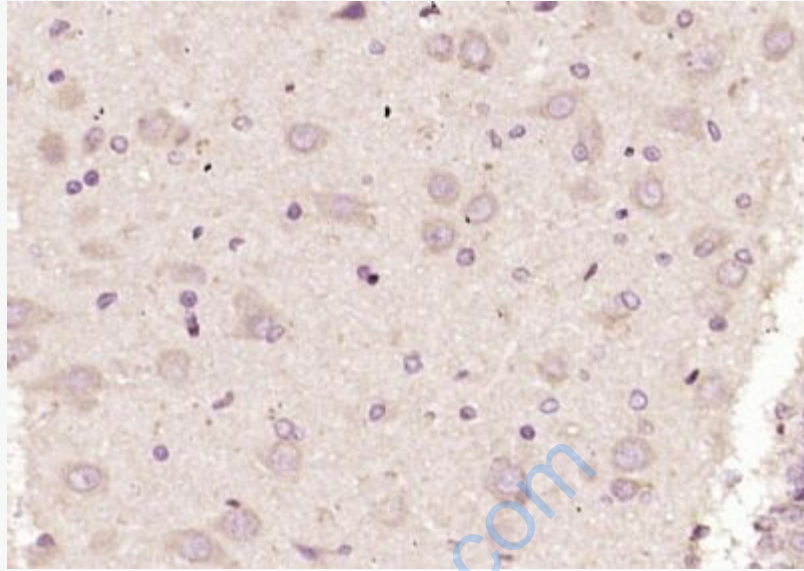
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

神经细胞Maker

(NMDAR1)N-甲基-D-

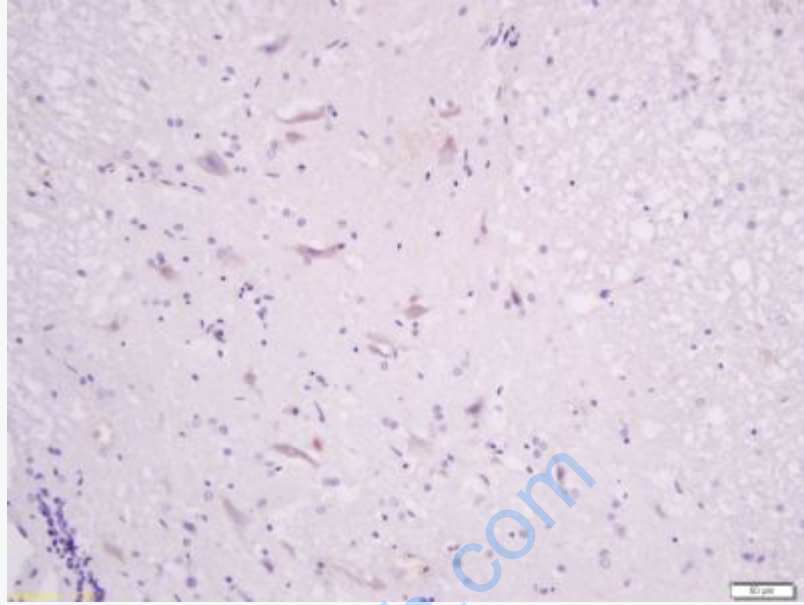
天门冬氨酸受体(NMDAR)是兴奋性氨基酸受体亚型之一,是由NMDAR1与不同的NMDAR2亚基组成的异聚体。

近年实验研究发现,许多NMDAR拮抗药均具有镇痛活性,表明NMDAR在痛觉传递中具有重要作用,这为新型镇痛药的研究开发提供了新的作用靶点。

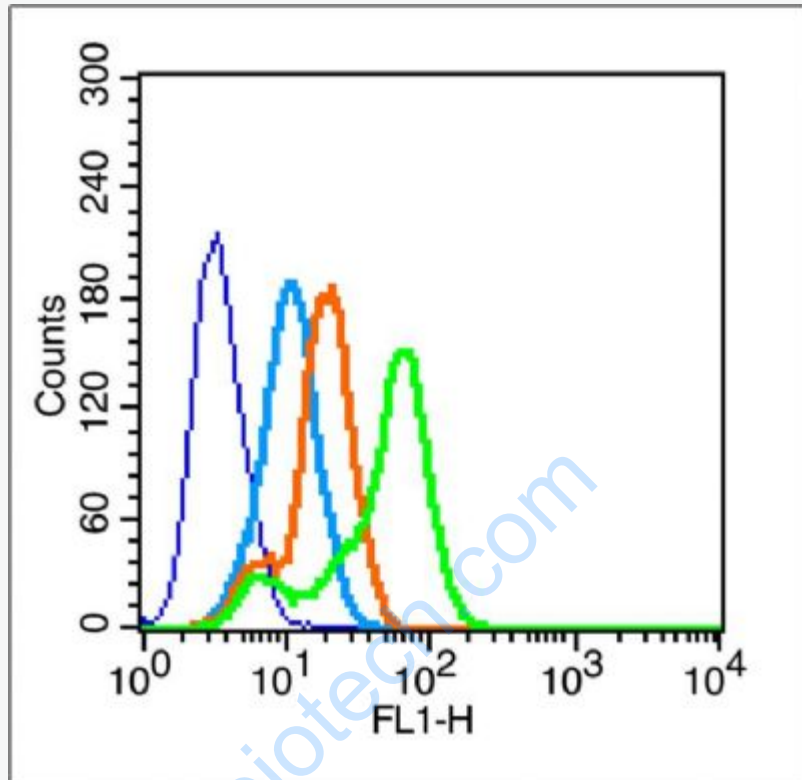


Picture:

Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NMDAR1) Polyclonal Antibody, Unconjugated (SL2030R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat spinal cord tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-NMDAR1 Polyclonal Antibody, Unconjugated(SL2030R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): MCF7 (blue).

Primary Antibody (green line): Rabbit Anti-NMDAR1 antibody (SL2030R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): F(ab')₂ fragment goat anti-rabbit IgG-FITC

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 2% paraformaldehyde for 10 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature.

	Acquisition of 20,000 events was performed.
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