



Rabbit Anti-NMDAR1 antibody

SL1068R

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,Cow,Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=2ug/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 NMDAR1:801-900/938
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:	Neuronal Marker 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.

Tissue Specificity:

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

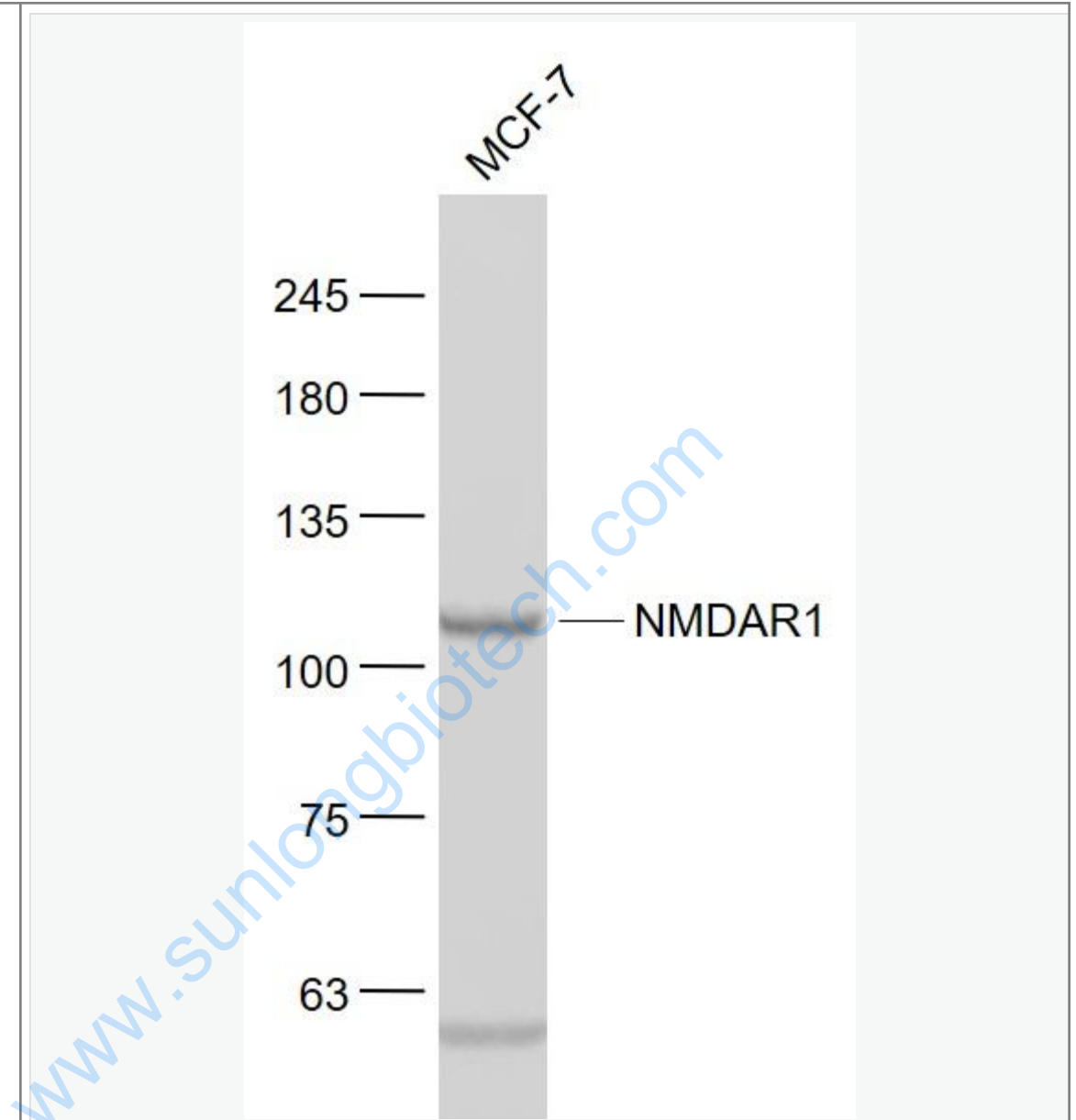
(NMDAR1)N-甲基-D-

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。

NMDAR1又称GluR1 (Glutamate Receptor

1)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:



Sample:

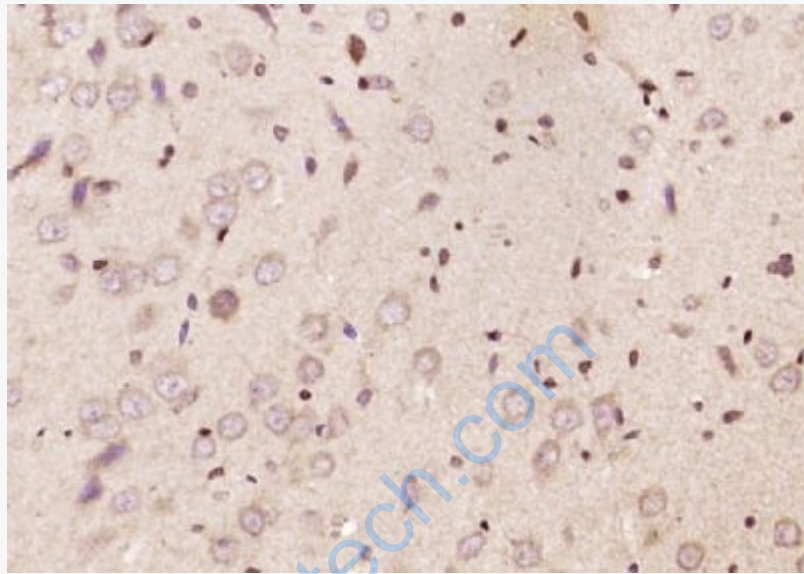
MCF-7(Human) Cell Lysate at 30 ug

Primary: Anti- NMDAR1 (SL1068R) at 1/1000 dilution

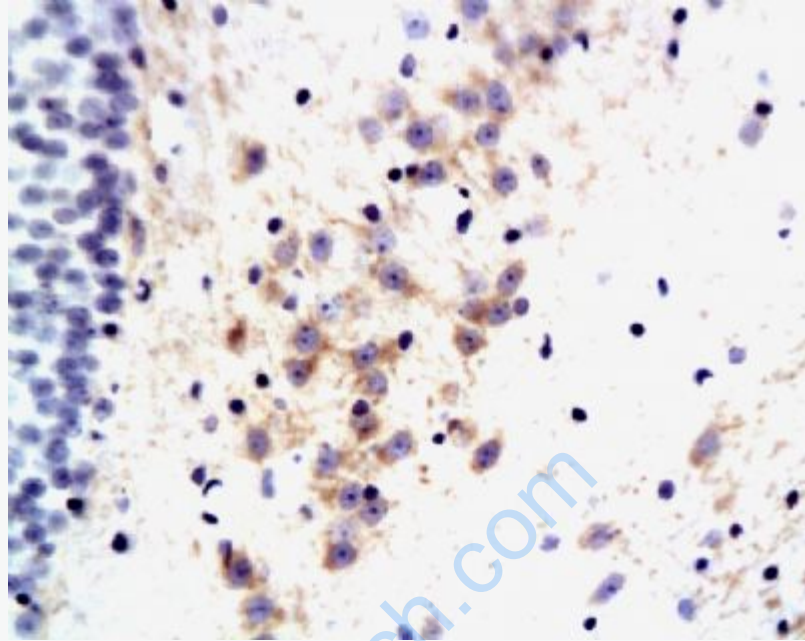
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 103 kD

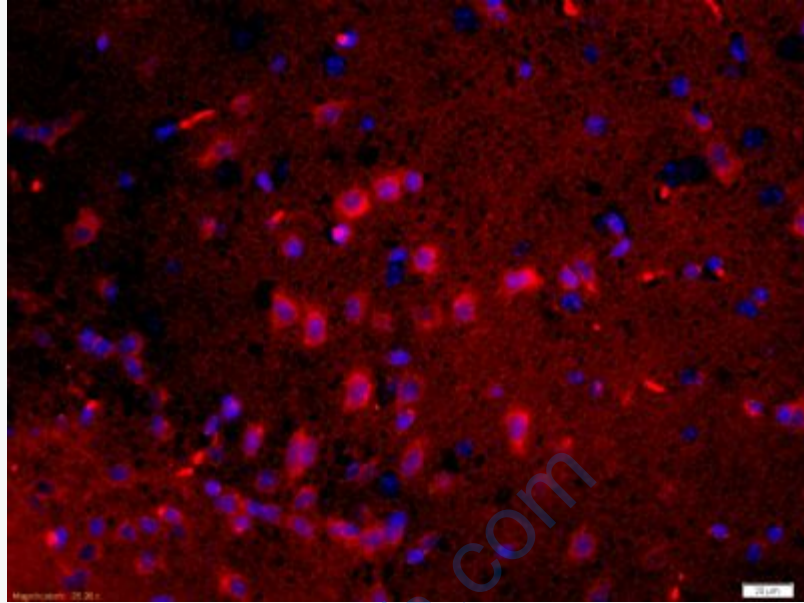
Observed band size: 105 kD



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 (SL1068R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat brain 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-GluR1/AMPA Polyclonal Antibody, Unconjugated(SL1068R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue;4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min;

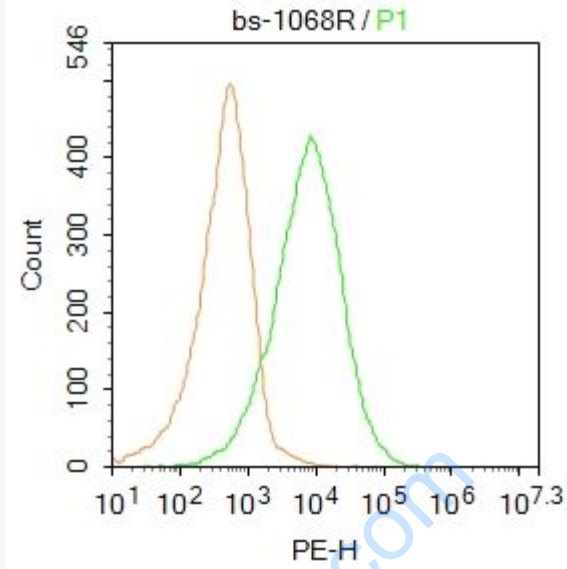
Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-GluR1/AMPA Polyclonal Antibody, Unconjugated(SL1068R)

1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3

conjugated(SL1068R)used at 1:200 dilution for 40 minutes at 37°C.

DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei



Blank control:MCF7.

Primary Antibody (green line): Rabbit Anti-NMDAR1 antibody (SL1068R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution: 2 μ g /test.

Protocol

The cells were incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.