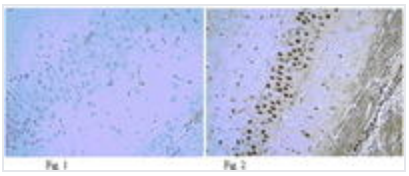
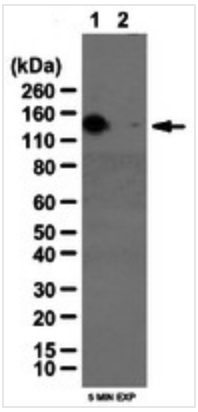
NR1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	NR1, Polyclonal Antibody
Full Product Name	NR1, Phosphorylated (Ser896) (NMDA Receptor, N-methyl-D-aspartate Receptor) (HRP)
Product Gene Name	anti-NR1 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by affinity chromatography.
Specificity	Recognizes rat NR1 when phosphorylated at Ser896. Species sequence homology: human, mouse 100%.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates.
Molecular Weight	130
3D Structure	ModBase 3D Structure for P35439
Immunogen	Synthetic peptide corresponding to rat NR1 phosphorylated at Ser896 (KLH). Epitope: Phosphorylated Ser896
Conjugate	HRP
Positive Control	Lambda phosphatase untreated and treated rat microsomal brain tissue lysates
Antigen Modification	Phosphorylated
Note	Preservative Free
Product Categories/Family for anti-NR1 antibody	Antibodies; Ion Channel
Applications Tested/Suitable for anti-NR1 antibody	Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-NR1 antibody	IHC: 1:25 detects NR1 in normal rat hippocampus tissue. WB: 1ug/ml detects NR1 on 10ug of lambda phosphatase untreated and treated rat microsomal brain tissue lysates. Applications are based on unconjugated antibody.
Related Product Information for anti-NR1 antibody	MBS6490467 is an antibody targeting NR1. Also known as NR1, Phosphorylated (Ser896) (NMDA Receptor, N-methyl-D-aspartate Receptor) (HRP). Reactive in Rat. Host: Rabbit.
Other Notes	Small volumes of anti-NR1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Immunohistochemistry (IHC) of anti-NR1 antibody
Immunohistochemistry Analysis: Representative lot data. Paraffin-embedded normal rat hippocampus tissue (Fig. 1 & 2) was prepared using heat-induced epitope retrieval in citrate buffer, pH 6.0. In Fig. 1, N5380-08was incubated with phospho peptide and in Fig. 2, MBS626374 was incubated with the control peptide. Immunostaining was performed using a 1:25 dilution of MBS626374 Reactivity was detected using the IHC-Select Detection Kit. The staining pattern appears as cytoplasmic (Fig. 2). The Pyramidal layer of the hippocampus stains as expected. This lot is diffusive at higher titers, specifically in the cerebellum and fimbria of the hippocampus.



Western Blot (WB) of anti-NR1 antibody
Western Blotting Analysis: Representative lot data. Lambda phosphatase untreated and treated rat microsomal brain tissue lysates were probed with MBS626374 (1ug/mL); untreated (lane 1) and treated (lane 2). Proteins were visualized using a Donkey Anti-Rabbit IgG secondary antibody conjugated to HRP and a chemiluminescence detection system. Arrow indicates NR1 (~130 kDa).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NR1. It may not necessarily be applicable to this product.

NCBI GI #	8393484
NCBI GeneID	24408
NCBI Accession #	NP_058706
UniProt Primary Accession #	P35439
UniProt Related Accession #	P35439
GenBank Nucleotide #	NP_058706.1
NCBI Official Full Name	glutamate receptor ionotropic, NMDA 1 isoform 1a
NCBI Official Synonym Full Names	glutamate ionotropic receptor NMDA type subunit 1
NCBI Official Symbol	Grin1
NCBI Official Synonym Symbols	NR1; GluN1; NMDAR1
UniProt Protein Name	Glutamate receptor ionotropic, NMDA 1
UniProt Synonym Protein Names	Glutamate [NMDA] receptor subunit zeta-1; N-methyl-D-aspartate receptor subunit NR1; NMD-R1
Protein Family	Malate dehydrogenase
UniProt Gene Name	Grin1
UniProt Synonym Gene Names	Nmdar1; GluN1; NMD-R1
NCBI Protein Information	glutamate receptor ionotropic, NMDA 1
NCBI Summary for NR1	subunit of NMDA-preferring ionotropic glutamate receptors; may play a role in long term potentiation [RGD, Feb 2006]
UniProt Comments for NR1	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.
Research Articles on NR1	**1.** In aged rats, overall decreases in NR1, NR2A, and NR2B expression and reduction in neuronal and endothelial NOS activities in the rat cerebral cortex were found. The age-dependent changes in NR1 and NR2B correlated with neuronal NOS in both hemispheres. The effect of sleep deprivation was also studied.

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