10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-NMDAR1 (pS890) Antibody

Rabbit polyclonal antibody to NMDAR1 (pS890)
Catalog # AP61377

Specification

Anti-NMDAR1 (pS890) Antibody - Product Information

Application	**WB, IF/IC, IHC**
Primary Accession	Q05586
Other Accession	P35438
Reactivity	**Human, Mouse, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**

Anti-NMDAR1 (pS890) Antibody - Additional Information

Gene ID 2902

Other Names
NMDAR1; Glutamate receptor ionotropic NMDA 1; GluN1; Glutamate [NMDA] receptor subunit zeta-1; N-methyl-D-aspartate receptor subunit NR1; NMD-R1

Target/Specificity
KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human NMDAR1 (pS890). The exact sequence is proprietary.

Dilution
WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200), IF/IC (1/100 - 1/500)
IF/IC~~N/A
IHC~~1:100~500

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-NMDAR1 (pS890) Antibody - Protein Information

Name GRIN1 (HGNC:4584)

Function
Component of N-methyl-D-aspartate (NMDA) receptors (NMDARs) that function as heterotetrameric, ligand-gated cation channels with high calcium permeability and voltage-dependent block by Mg(2+) (PubMed:21376300, PubMed:26875626, PubMed:26919761, PubMed:<a

href="http://www.uniprot.org/citations/28126851" target="_blank">28126851, PubMed:28228639, PubMed:36959261, PubMed:7679115, PubMed:7681588, PubMed:7685113). NMDARs participate in synaptic plasticity for learning and memory formation by contributing to the long-term potentiation (LTP) (PubMed:26875626). Channel activation requires binding of the neurotransmitter L-glutamate to the GluN2 subunit, glycine or D-serine binding to the GluN1 subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:21376300, PubMed:26875626, PubMed:26919761, PubMed:27164704, PubMed:28095420, PubMed:28105280, PubMed:28126851, PubMed:28228639, PubMed:36959261, PubMed:38538865, PubMed:7679115, PubMed:7681588, PubMed:7685113). NMDARs mediate simultaneously the potasium efflux and the influx of calcium and sodium (By similarity). Each GluN2 or GluN3 subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, Ca2(+) permeability, and binding to allosteric modulators (PubMed:26875626, PubMed:26919761, PubMed:36309015, PubMed:38598639).

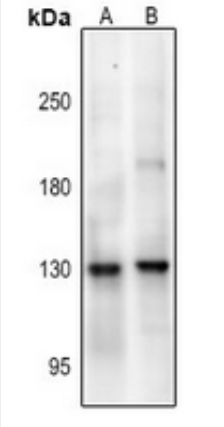
Cellular Location
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P35439}. Postsynaptic cell membrane {ECO:0000250|UniProtKB:P35438}. Postsynaptic density membrane {ECO:0000250|UniProtKB:P35439}. Synaptic cell membrane {ECO:0000250|UniProtKB:P35438}. Note=Synaptic cell membrane targeting is dependent of GRIN2B/GluN2B subunit (By similarity). Association with GRIN3A occurs in the endoplasmic reticulum (By similarity) {ECO:0000250, ECO:0000250|UniProtKB:P35438, ECO:0000250|UniProtKB:P35439}

Anti-NMDAR1 (pS890) Antibody - Protocols

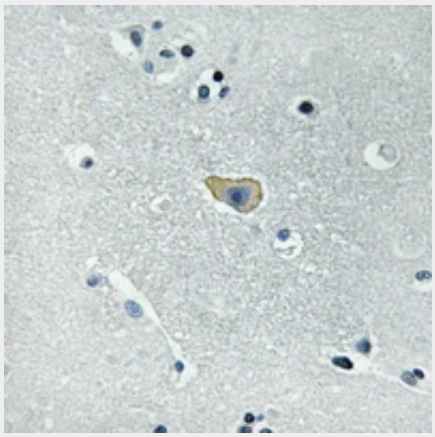
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

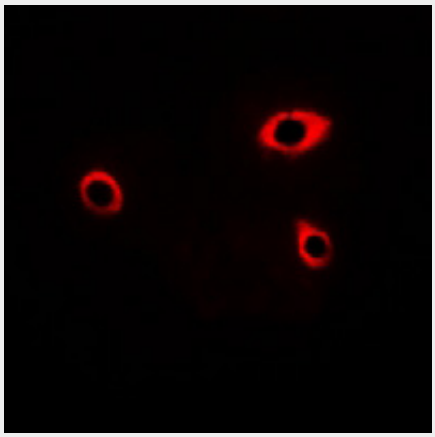
Anti-NMDAR1 (pS890) Antibody - Images



Western blot analysis of NMDAR1 (pS890) expression in A549 (A), U87MG (B) whole cell lysates.



Immunohistochemical analysis of NMDAR1 (pS890) staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of NMDAR1 (pS890) staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated

with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Anti-NMDAR1 (pS890) Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human NMDAR1 (pS890). The exact sequence is proprietary.