ARG52354
anti-NMDAR1 C2 antibody

Package: 25 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes NMDAR1 C2
Tested Reactivity	Ms, Rat
Predict Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	NMDAR1 C2
Species	Rat
Immunogen	Synthetic peptide corresponding to amino acid residues specific to the NR1 subunit, C2 splice variant insert conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	NMDA1; GluN1; MRD8; NMD-R1; Glutamate receptor ionotropic, NMDA 1; Glutamate [NMDA] receptor subunit zeta-1; N-methyl-D-aspartate receptor subunit NR1; NR1; NMDAR1

Application Instructions

Application table

Application	Dilution
IHC-P	frozen sections: 1:1000 to 1:2000
WB	1:1000

Application Note: Specific for the ~120k NR1 subunit of the NMDA Receptor containing the C2 splice variant insert. Does not recognize the NR1 subunits of the NMDA receptor that do not contain the C2 insert.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

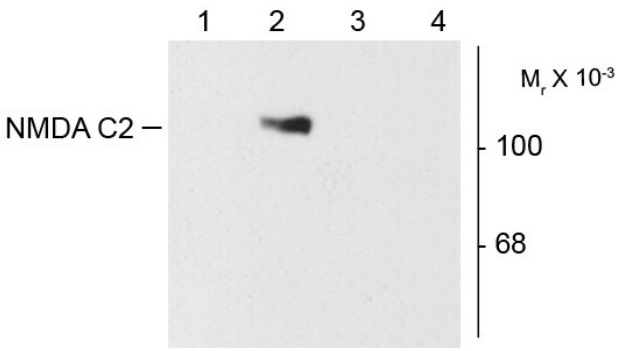
Properties

Form	Powder
Purification	Affinity Purified
Buffer	Lyophilized
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 14810 Mouse GeneID: 24408 Rat Swiss-port # P35438 Mouse Swiss-port # P35439 Rat
Gene Symbol	GRIN1
Gene Full Name	glutamate receptor, ionotropic, N-methyl D-aspartate 1
Background	The ion channels activated by glutamate that are sensitive to N-methyl-Daspartate (NMDA) are designated NMDA Receptors (NMDAR). The NMDAR plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer's, epilepsy and ischemic neuronal cell death (Grosshans et al., 2002; Wenthold et al., 2003; Carroll and Zukin, 2002). There are a number of different splice variants of the NR1 subunit (Foldes et al., 1994; Zukin and Bennett, 1995). Differential splicing of three exons in the NR1 subunit generates up to eight NR1 subunit splice variants and 7 of these have been identified in cDNA libraries. These exons encode a 21 amino acid N-terminal domain (N1) and adjacent sequences in the C-terminus (C1 and C2). Splicing out the C2 cassette eliminates the first stop codon and produces a new reading frame that generates a new sequence of 22 amino acids (C2'). Considerable attention has been focused on the distribution and expression of these splice variants that may affect the functional properties and regulation of the NMDAR. Anti-NMDAR, NR1
Research Area	Neuroscience antibody
Calculated Mw	105 kDa
PTM	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.

Images



ARG52354 anti-NMDAR1 C2 antibody WB image

Western blot: 10 µg of HEK293 cells expressing:
Lane 1 - HEK cells without NR1 expression;
Lane 2 - NR1 subunit containing only the C2 Insert;
Lane 3 - NR1 subunit containing the C1 and C2' insert;
Lane 4 - NR1 subunit containing the N1 and C2' insert.
stained with ARG52354 anti-NMDAR1 C2 antibody showing specific immunolabeling of the ~120 kDa NR1 subunit of the NMDA receptor containing the C2 splice variant insert.