

Product datasheet

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ARG52356 anti-NMDAR1 N1 antibody

Package: 25 μg Store at: -20°C

Summary

Product Description Rabbit Polyclonal antibody recognizes NMDAR1 N1

Tested Reactivity Ms, Rat

Predict Reactivity Hu, Chk, Dog, NHuPrm, Xenopus laevis

Tested Application IHC-P, WB

Host Rabbit

Clonality Polyclonal

Isotype IgG

Target Name NMDAR1 N1

Species Rat

Immunogen Synthetic peptide corresponding to amino acid residues specific to the NR1 subunit, N1 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, N1 splice variant insert protein of the NMDA receptor. Does not recognize NR1 subunits of the NMDA receptor that do not contain the N1 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 GenelD: 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 and 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.

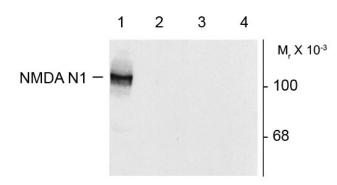
Research Area Neuroscience antibody

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



ARG52356 anti-NMDAR1 N1 antibody WB image

Western blot: 10 μ g of HEK 293 cells expressing: Lane 1 - NR1 subunit containing the N1 and C2' Insert showing specific immunolabeling of the ~120 kDa NR1 subunit of the NMDA receptor containing the N1 splice variant insert. Lane 2 - NR1 subunit containing only the C2 Insert; Lane 3 - NR1 subunit containing the C1 and C2' Insert; Lane 4 - without NR1 expression (Mock). stained with ARG52356 anti-NMDAR1 N1 antibody.