Datasheet for ABIN372676

anti-NMDA 1 Receptor antibody (Splice Variant C2)

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Overview

Quantity:	25 µg
Target:	NMDA 1 Receptor (NMDA R1)
Binding Specificity:	Splice Variant C2
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This NMDA 1 Receptor antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	Peptide from the NR1 subunit, C2 splice variant insert of Rat NMDA Receptor.
Isotype:	IgG
Specificity:	This antibody recognizes 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.
Cross-Reactivity (Details):	Species reactivity (expected):Human. Species reactivity (tested):Mouse and Rat.
Purification:	Affinity Chromatography.

Target Details

Target:	NMDA 1 Receptor (NMDA R1)

Target Details

Alternative Name:	NMDA Receptor 1 (NMDA R1 Products)
Background:	The ion channels activated by glutamate that are sensitive to N-methyl-D-aspartate (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.Synonyms: GRIN1, Glutamate [NMDA] receptor subunit zeta-1, NMDAR1
Gene ID:	24408
NCBI Accession:	NP_058706
UniProt:	P35439

Application Details

Application Notes:	Western blot: 1/1000. Immunohistochemistry on Frozen Sections: 1/1000-1/2000. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Restrictions:	For Research Use only

Handling

Reconstitution:	Restore in 50 µL PBS (137 mM NaCl, 7.5 mM Na2HPO4, 2.7 mM KCl, 1.5 mM KH2PO4, pH 7.4) before use.
Buffer:	5 mM Ammonium Bicarbonate.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	-20 °C
Storage Comment:	Store the antibody undiluted (in aliquots) at-20 °C.

Publications

Product cited in:

Brady, Diaz, Iuso, Everett, Valenzuela, Caldwell: "Moderate prenatal alcohol exposure reduces plasticity and alters NMDA receptor subunit composition in the dentate gyrus." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 33, Issue 3, pp. 1062-7, (2013) (PubMed).

Grosshans, Clayton, Coultrap, Browning: "LTP leads to rapid surface expression of NMDA but not AMPA receptors in adult rat CA1." in: **Nature neuroscience**, Vol. 5, Issue 1, pp. 27-33, (2001) (PubMed).

Images

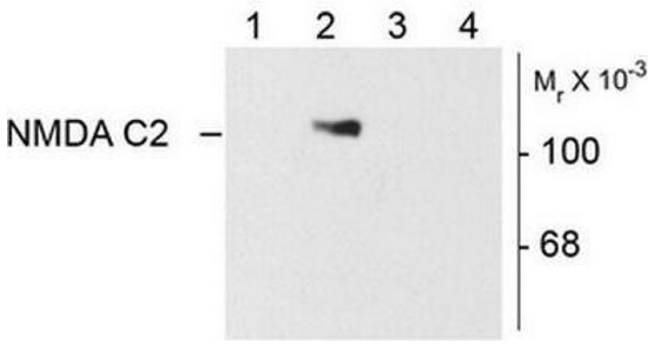

Image 1.