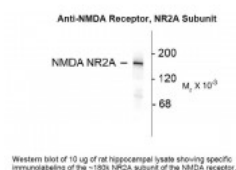




NMDA Antibody

CATALOG NUMBER: 50-180



Western blot of 10 ug of rat hippocampal lysate showing specific immunolabeling of the ~180k NR2A subunit of the NMDA receptor.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
TESTED APPLICATIONS:	WB
APPLICATIONS:	The antibody has been directly tested for reactivity in Western blots with human, mouse and rat tissue.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
PREDICTED MOLECULAR WEIGHT:	180
IMMUNOGEN:	Fusion protein from the C-terminus region of the NR2A subunit of rat NMDA receptor.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	Neat Serum
PHYSICAL STATE:	Liquid
STORAGE CONDITIONS:	NMDA antibody can be stored at -20°C and is stable at -20°C for at least 1 year.
CLONALITY:	Polyclonal
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	NR2A, GluN2A, NMDAR2A, N-methyl D-aspartate receptor subtype 2A
ACCESSION NO.:	Q00959
PROTEIN GI NO.:	3915771
OFFICIAL SYMBOL:	Grin2a
GENE ID:	24409

Background

BACKGROUND: The NMDA receptor (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). The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS (Lovinger et al., 1989; Alvestad et al., 2003; Snell et al., 1996). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999). The rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned. The NR1 protein can form NMDA activated channels when expressed in *Xenopus* oocytes but the currents in such channels are much smaller than those seen in situ. Channels with more physiological characteristics are produced when the NR1 subunit is combined with one or more of the NMDAR2 (NR2 A-D) subunits.

REFERENCES:

- 1) Alvestad RM, Grosshans DR, Coultrap SJ, Nakazawa T, Yamamoto T, Browning MD (2003) Tyrosine dephosphorylation and ethanol inhibition of N-methyl-D-aspartate receptor function. *J Biol Chem* 278:11020-11025.
 - 2) Carroll RC, Zukin RS (2002) NMDA-receptor trafficking and targeting: implications for synaptic transmission and plasticity. *Trends Neurosci* 25:571-577.
 - 3) Grosshans DR, Clayton DA, Coultrap SJ, Browning MD (2002) LTP leads to rapid surface expression of NMDA but not AMPA receptors in adult rat CA1. *Nat Neurosci* 5:27-33.
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FOR RESEARCH USE ONLY

December 13, 2016