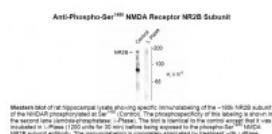




NMDA (phospho Ser1480) Antibody

CATALOG NUMBER: 50-234



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~180k NR2B subunit of the NMDAR phosphorylated at Ser1480 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: lambda-Ptase). The blot is identical to the control except that it was incubated in lambda-Ptase (1200 units for 30 min) before being exposed to the phospho-Ser1480 N

Specifications

SPECIES REACTIVITY:	Bovine, Dog, Human, Mouse, Rat, Zebrafish
TESTED APPLICATIONS:	WB
APPLICATIONS:	The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will react with bovine, canine, chicken, human, mouse, non-human primate and zebra fish based on the fact that these species have 100% homology with the amino acid sequence used as antigen.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
PREDICTED MOLECULAR WEIGHT:	180
IMMUNOGEN:	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser1480 of the NR2B subunit of the rat NMDA receptor.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	Affinity Purified
PHYSICAL STATE:	Liquid
BUFFER:	100 uL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per mL BSA and 50% glycerol.
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:	GluN2B, N-methyl D-aspartate receptor subtype 2B, GluN2B
ACCESSION NO.:	Q00960
PROTEIN GI NO.:	548372
OFFICIAL SYMBOL:	Grin2b
GENE ID:	24410

Background	
BACKGROUND:	<p>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 rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned. The NR1 protein can form NMDA activated channels when expressed in <i>Xenopus</i> 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 (Ishii et al., 1993). It has been shown that phosphorylation of Ser1480 disrupts the interaction of NR2B with the PDZ domains of PSD-95 and SAP102 and decreases surface NR2B expression in neurons (Chung et al., 2004).</p>
REFERENCES:	<p>1) Carroll RC, Zukin RS (2002) NMDA-receptor trafficking and targeting: implications for synaptic transmission and plasticity. <i>Trends Neurosci</i> 25:571-577.</p> <p>2) 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. <i>Nat Neurosci</i> 5:27-33.</p> <p>3) Ishii T, Moriyoshi K, Sugihara H, Sakurada K, Kadotani H, Yokoi M, Akazawa C, Shigemoto R, Mizuno N, Masu M, Nakanishi S (1993) Molecular characterization of the family of the N-methyl- D-aspartate receptor subunits. <i>J Biol Chem</i> 268:2836-2843.</p>

FOR RESEARCH USE ONLY

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