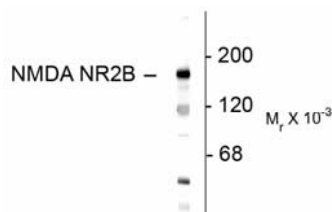


**Pel-Freez®****Product Specifications****Anti-NMDA Receptor, NR2B Subunit N-terminus****Size:** 10 ug**Product Description:** Affinity purified rabbit polyclonal antibody**Applications: WB:** 1:1000**Antigen:** Peptide from the N-terminus of the NR2B subunit of rat NMDA receptor.**Species reactivity:** The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will also react with bovine, canine, chicken, human, mouse and non-human primate based on the fact that these species have 100 % homology with the amino acid sequence used as antigen.**Biological Significance:** 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). 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 rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned and it 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. Overexpression of the NR2B-subunit of the NMDA receptor has been associated with increases in learning and memory while aged, memory impaired animals have deficiencies in NR2B expression (Clayton et al., 2002a; Clayton et al., 2002b). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999).**Anti-NMDA Receptor, NR2B Subunit**

**Western blot** of 10 ug of rat hippocampal lysate showing specific immunolabeling of the ~180k NR2B subunit of the NMDA receptor.

**Purification Method:** Prepared from rabbit serum by affinity purification using a column to which the peptide immunogen was coupled.

**Antibody Specificity:** Specific for the ~180k NR2B subunit of the NMDA receptor.

**Quality Control Tests:** Western blots performed on each lot.

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