

Product Information



NMDA Receptor NR2B Subunit Polyclonal Antibody

Item No. 10609

- Supplied as:** 10 µg antibody vial; lyophilized from 5 mM ammonium bicarbonate; the antibody should be reconstituted in 50 µl phosphate buffered saline (PBS: 137 mM NaCl, 7.5 mM Na₂HPO₄, 2.7 mM KCl, 1.5 mM KH₂PO₄, pH 7.4) before use.
- Synonym:** N-methyl-D-aspartate Receptor
- Host:** Rabbit
- Antigen:** Fusion protein from the C-terminus of the NR2B subunit of rat NMDA receptor
- Cross Reactivity:** (+) Human, rat, and mouse NMDA receptor
- Stability:** ≥1 year at -20°C
- Applications:** The recommended starting dilution for western blot is 1:1,000; immunohistochemistry is 1:1,000 to 1:2,000; and immunoprecipitation is 3 µl per 200 µg lysate

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. The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS. 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. The NMDAR is also potentiated by protein phosphorylation.

Related Products

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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