Saint Louis, Missouri 63103 USA
Telephone (800) 325-5832 (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Anti-Glutamate Receptor NMDAR2B (NR2B)
Developed in Rabbit
Affinity Isolated Antibody

Product Number **M-265**

Product Description

Anti-Glutamate Receptor NMDAR2B (NR2B) is developed in rabbit using the C-terminal portion of NR2B as the immunogen (amino acids 984-1104).

This antibody can be used for labeling of the 180 kDa NR2B subunit of the NMDA receptor in immunoblotting. This labeling is blocked by the preadsorption of the antibody with the immunogen. It does not cross react with the NR2A or NR2C subunits. Works with rat, mouse and human tissues.

The N-Methyl-D-Aspartate (NMDA) receptor complex is comprised of 2 types of subunits, NR1 and NR2. Only one type of NR1 subunits has yet been identified while four distinct subunits have been identified for the NR2 receptor, NR2A, NR2B, NR2C and NR2D. While the NR2 subunits are not functional alone, they combine with the NR1 subunit to produce a variety of different receptor types. A number have studies have also shown that the functional properties of the receptors complexes formed by the NR1 and NR2 subunits are largely determined by the NR2 components of the complex.

NMDA receptors are post-synaptic and play important roles in plasticity in the developing and mature central nervous system (CNS). Agonists and antagonists of NMDA receptors have been proposed to be of therapeutic benefit in a number of CNS disorders, including stroke, head injury, epilepsy, pain and Alzheimer's disease.

Reagents

Anti-Glutamate Receptor NMDAR2B (NR2B) is supplied lyophilized from 5 mM ammonium bicarbonate buffer .

Preparation Instructions

Anti-Glutamate Receptor NMDAR2B (NR2B) should be reconstituted with 50 µl of sterile phosphate buffered saline (PBS).

Storage/Stability

For continuous use, store at 2 – 8 °C for up to one month. For extended storage, solution may be frozen at –20 °C in working aliquots. Storage in "frost-free" freezers is not recommended. Repeated freezing and thawing is not recommended.

Product Profile

Recommended working dilution for Anti-Glutamate Receptor NMDAR2B (NR2B) Antibody is 1:2000 for immunoblotting., 1:1000 for immunocytochemistry. Additionally, 3 µl of antibody will, under appropriate conditions, immunoprecipitate all NMDAR2B in 200 µg of rat brain.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test

References

1. Joelson, D. et al. Development of N-methyl-D-aspartate receptor subunit immunoreactivity in the neonatal gerbil cochlear nucleus. Microsc. Res. Tech. **41**, 246-262 (1998).
2. Monyer, H. et al. Heteromeric NMDA receptors: molecular cloning and functional distinction of subtypes. Science, **256**, 1217-1221 (1992).

AH/JK 5/16/2004