

DESCRIPTION

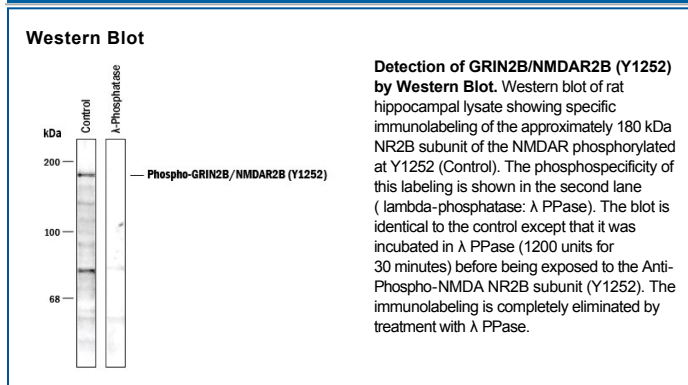
Species Reactivity	Human/Rat/Primate
Specificity	Human, non-human primates, and rat ~180 kDa NMDA Receptor NR2B subunit phosphorylated at Y1252 in Western blots.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Y1252 of NMDA R, NR2B Subunit
Formulation	100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/mL BSA and 50% glycerol. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1:1000 dilution	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	For long-term storage, ≤ -20° C is recommended. Product is stable at ≤ -20° C for at least 1 year.

BACKGROUND

NMDA (N-Methyl D-Aspartate) receptors are members of the glutamate receptor family of ligand-gated ion channels. The functional NMDA receptor (NMDAR) is a 650-850 kDa heteromultimer of at least two NR2 (NMDAR2) subunits and two NR1 subunits. NR2 subunits determine overall NMDAR characteristics and mediate NMDAR clustering and synaptic localization through cytoplasmic interaction with PSD-95/SAP90 family members. Upon glutamate binding to NR2, and glycine binding to NR1, the NMDA channel is opened, allowing calcium and sodium influx into the cell. There are four genes that code for NR2 subunits (NR2A-D). The NR2B subunit generates a high conductance NMDAR. Human NR2B (also NR3;GRIN2B and GluRε2) is a 180-200 kDa, 1458 amino acid (aa), three transmembrane (TM) glycoprotein that contains a 531 aa N-terminal extracellular domain (ECD), and a 646 aa cytoplasmic region. At least three tyrosines are known to be phosphorylated by Fyn in the cytoplasmic region. These include Y1252, Y1336 and Y1472. While much is known about Y1472, little information is available about the consequences of Y1252 and Y1336 phosphorylation.

References:

- Stephenson, F.A. (2001) *Curr. Drug Targets* 2:233.
- Cull-candy, S.G. and D.N. Leszkiewicz (2004) *Sci. STKE* re16 (2004).
- Prybylowski, K. and R.J. Wenthold (2004) *J. Biol. Chem.* 279:9673.
- Ishii, T. *et al.* (1993) *J. Biol. Chem.* 268:2836.
- Hess, S.D. *et al.* (1996) *J. Pharmacol. Exp. Ther.* 278:808.
- Nakazawa, T. *et al.* (2001) *J. Biol. Chem.* 276:693.