

#### DESCRIPTION

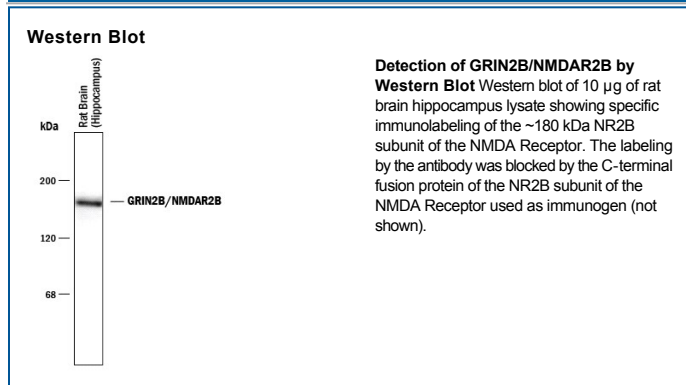
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Human, mouse, rat ~180 kDa NR2B-subunit of the NMDA Receptor
<b>Source</b>	Polyclonal Rabbit IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Fusion protein from the C-terminus of the NR2B-subunit of rat NMDA Receptor
<b>Formulation</b>	10 µg antibody per vial; lyophilized in 5 mM ammonium bicarbonate. 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1:1000 dilution	See Below
<b>Immunohistochemistry</b>	1:1000 - 1:2000 dilution	Frozen sections; unpublished observations
<b>Immunoprecipitation</b>	3 µL/200 µg lysate	

#### DATA



#### PREPARATION AND STORAGE

<b>Reconstitution</b>	This antibody should be reconstituted in 50 µL phosphate buffered saline (137 mM NaCl, 7.5 mM Na <sub>2</sub> HPO <sub>4</sub> , 2.7 mM KCl, 1.5 mM KH <sub>2</sub> PO <sub>4</sub> , pH 7.4) before use.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	The lyophilized product is stable at ≤ -20° C for at least 1 year. After reconstitution the antibody should be aliquoted and stored at ≤ -20° C.

#### BACKGROUND

Rat NMDA receptor subunit 2B (NR2B) is a 1456 amino acid, 180 kDa, 3-transmembrane member of the glutamate-gated ion channel family. NMDA receptors are heteromultimers of at least two NR1 subunits and two NR2 or two (presumably) NR3 subunits. Upon ligand binding, NMDA receptors open and allow cation transit. The NR1 subunits bind glycine and are essential for the physical formation of the ion channel. NR2 subunits apparently bind glutamate and impart pharmacological properties to the receptor complex. Fully functional receptors require the presence of both glycine and glutamate. The NR1-NR2B complex has the highest affinity for glutamate. Both NR1 and NR2B subunits can be phosphorylated by protein kinase C (PKC). On NR1, PKC phosphorylates on serine at 890; on NR2B, PKC phosphorylates on tyrosine at 1472. Phosphorylation is considered to promote ion transit and impact NR2B interaction with downstream signaling molecules.

#### References:

1. Grosshans, D.R. and M.D. Browning (2001) J. Neurochem. 76:737.
2. Cheung, H. et al. (2003) J. Neurochem. 86:1441.
3. Gibb, A.J. (2004) Trends Neurosci. 27:7.
4. Liu, Y. and J. Zhang (2000) Chin. Med. J. 113:948.