

## GluN 2 B

Cat.No. 244 103; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

### Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 (AP staining) <b>IP:</b> yes (see remarks) <b>ICC:</b> not tested yet <b>IHC:</b> not tested yet <b>IHC-P/FFPE:</b> not tested yet
Immunogen	Synthetic peptide corresponding to AA 42 to 60 from rat GluN2B (UniProt Id: Q00960)
Reactivity	Reacts with: rat (Q00960), mouse (Q01097). Other species not tested yet.
Specificity	Specific for GluN 2B, no cross-reactivity to GluN 2A.
matching control	244-1P
Remarks	<b>IP:</b> For most effective IP use the solubilization protocol described in the ELISA protocol. Consider that protein-protein interaction may be affected.

**TO BE USED IN VITRO / FOR RESEARCH ONLY  
 NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**GluNs (NMDA-receptors)** represent a class of glutamate receptors that are of central importance in synaptic plasticity. Multiple NMDA receptor subtypes exist: GluN 1 and **GluN 2 A-D**. GluN 1 is the most important as it is required for activity. NMDA-receptors allow Ca<sup>2+</sup> influx and are thought to trigger Ca<sup>2+</sup> dependent postsynaptic processes involved in long term potentiation and depression.

### Selected References SYSY Antibodies

Chronic Stress Triggers Expression of Immediate Early Genes and Differentially Affects the Expression of AMPA and NMDA Subunits in Dorsal and Ventral Hippocampus of Rats.  
 Pacheco A, Aguayo FI, Aliaga E, Muñoz M, García-Rojo G, Olave FA, Parra-Fiedler NA, García-Pérez A, Tejos-Bravo M, Rojas PS, Parra CS, et al.  
*Frontiers in molecular neuroscience* (2017) 10: 244. **WB, IHC; tested species: rat**

Chronic mild corticosterone exposure during adolescence enhances behaviors and upregulates neuroplasticity-related proteins in rat hippocampus.  
 Li J, Li Y, Sun Y, Wang H, Liu X, Zhao Y, Wang H, Su Y, Si T  
*Progress in neuro-psychopharmacology & biological psychiatry* (2019) 89: 400-411. **WB; tested species: rat**

Chronic Toxoplasma infection is associated with distinct alterations in the synaptic protein composition.  
 Lang D, Schott BH, van Ham M, Morton L, Kulikovskaja L, Herrera-Molina R, Pielot R, Klawonn F, Montag D, Jänsch L, Gundelfinger ED, et al.  
*Journal of neuroinflammation* (2018) 15(1): 216. **WB; tested species: mouse**

Hippocampal Memory Recovery After Acute Stress: A Behavioral, Morphological and Molecular Study.  
 Aguayo FI, Tejos-Bravo M, Díaz-Vélez G, Pacheco A, García-Rojo G, Corrales W, Olave FA, Aliaga E, Ulloa JL, Avalos AM, Román-Albasini L, et al.  
*Frontiers in molecular neuroscience* (2018) 11: 283. **WB; tested species: rat**

Parental THC exposure leads to compulsive heroin-seeking and altered striatal synaptic plasticity in the subsequent generation.  
 Szutorisz H, DiNieri JA, Sweet E, Egervari G, Michaelides M, Carter JM, Ren Y, Miller ML, Blitzer RD, Hurd YL  
*Neuropsychopharmacology: official publication of the American College of Neuropsychopharmacology* (2014) 39(6): 1315-23.  
**WB; tested species: rat**

Novel application of stem cell-derived neurons to evaluate the time- and dose-dependent progression of excitotoxic injury.  
 Gut IM, Beske PH, Hubbard KS, Lyman ME, Hamilton TA, McNutt PM  
*PloS one* (2013) 8(5): e64423. **WB**

### Selected General References

NMDA receptor surface mobility depends on NR2A-2B subunits.  
 Groc L, Heine M, Cousins SL, Stephenson FA, Lounis B, Cognet L, Choquet D  
*Proceedings of the National Academy of Sciences of the United States of America* (2006) 103(49): 18769-74.

Synaptic distribution of the NR1, NR2A and NR2B subunits of the N-methyl-d-aspartate receptor in the rat lumbar spinal cord revealed with an antigen-unmasking technique.  
 Nagy GG, Watanabe M, Fukaya M, Todd AJ  
*The European journal of neuroscience* (2004) 20(12): 3301-12.

NMDA receptors and PSD-95 are found in attachment plaques in cerebellar granular layer glomeruli.  
 Petralia RS, Wang YX, Wenthold RJ  
*The European journal of neuroscience* (2002) 15(3): 583-7.

A developmental change in NMDA receptor-associated proteins at hippocampal synapses.  
 Sans N, Petralia RS, Wang YX, Blahos J, Hell JW, Wenthold RJ  
*The Journal of neuroscience: the official journal of the Society for Neuroscience* (2000) 20(3): 1260-71.

Neuronal and glial localization of NR1 and NR2A/B subunits of the NMDA receptor in the human cerebral cortex.  
 Conti F, Barbaresi P, Melone M, Ducati A  
*Cerebral cortex (New York, N.Y. : 1991)* (1999) 9(2): 110-20.

The NMDA receptor subunits NR2A and NR2B show histological and ultrastructural localization patterns similar to those of NR1.  
 Petralia RS, Wang YX, Wenthold RJ  
*The Journal of neuroscience: the official journal of the Society for Neuroscience* (1994) 14(10): 6102-20.

Heteromeric NMDA receptors: molecular and functional distinction of subtypes.  
 Monyer H, Sprengel R, Schoepfer R, Herb A, Higuchi M, Lomeli H, Burnshev N, Sakmann B, Seburg PH  
*Science (New York, N.Y.)* (1992) 256(5060): 1217-21.