

GluN 1

Cat.No. 114 103; 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 ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: not recommended (see remarks) IP: not tested yet ICC: 1 : 250 up to 1 : 500 (see remarks) IHC: 1 : 500 up to 1 : 1000 (see remarks) IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 35 to 53 from rat GluN1 (UniProt Id: P35439)
Reactivity	Reacts with: human (Q05586), rat (P35439), mouse (P35438). Other species not tested yet.
Specificity	Specific for GluN 1.
matching control	114-OP
Remarks	WB: Antibody 1, cat. no. 114 003, is recommended for WB. ICC: Only suitable for the surface staining of living cells. IHC: This antibody requires antigen retrieval with pepsin according to: Lorincz A & Nusser Z (2008). recommended protocol

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 Ca²⁺ influx and are thought to trigger Ca²⁺ dependent postsynaptic processes involved in long term potentiation and depression.

Selected References SYSY Antibodies

Anti-NMDA Receptor Encephalitis in the Polar Bear (*Ursus maritimus*) Knut. Prüss H, Leubner J, Wenke NK, Czirják GÁ, Szentiks CA, Greenwood AD Scientific reports (2015) 5: 12805. **IHC**

Human cerebrospinal fluid monoclonal N-methyl-D-aspartate receptor autoantibodies are sufficient for encephalitis pathogenesis.

Kreye J, Wenke NK, Chayka M, Leubner J, Murugan R, Maier N, Jurek B, Ly LT, Brandl D, Rost BR, Stumpf A, et al.

Brain : a journal of neurology (2016) 139(Pt 10): 2641-2652. **IHC; tested species: mouse, rat**

Activity-dependent regulation of MHC class I expression in the developing primary visual cortex of the common marmoset monkey.

Ribic A, Flügge G, Schlumbohm C, Mätz-Rensing K, Walter L, Fuchs E

Behavioral and brain functions : BBF (2011) 7: 1. **IHC**

Selected General References

AMPA and NMDA receptors: similarities and differences in their synaptic distribution.

Nusser Z

Current opinion in neurobiology (2000) 10(3): 337-41.

A nomenclature for ligand-gated ion channels.

Collingridge GL, Olsen RW, Peters J, Spedding M

Neuropharmacology (2009) 56(1): 2-5.

Differential assembly of coexpressed glutamate receptor subunits in neurons of rat cerebral cortex.

Brose N, Huntley GW, Stern-Bach Y, Sharma G, Morrison JH, Heinemann SF

The Journal of biological chemistry (1994) 269(24): 16780-4.

Molecular cloning and characterization of the rat NMDA receptor.

Moriyoshi K, Masu M, Ishii T, Shigemoto R, Mizuno N, Nakanishi S

Nature (1991) 354(6348): 31-7.