

Datasheet for ABIN361396
anti-NMDAR2A antibody (C-Term)



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3 Images

1 Publication

Overview

Quantity:	10 µg
Target:	NMDAR2A (GRIN2A)
Binding Specificity:	C-Term
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This NMDAR2A antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	Fusion protein from the C-terminal region of the NR2A subunit
Specificity:	Specific for the ~180k NR2A subunit of the NMDA receptor. Recognizes human, mouse and rat forms of the NR2A subunit of NMDAR. No reactivity towards the NR2B and NR2C subunits. Immunolabeling is blocked by pre-adsorption of antibody with the fusion protein used to generate the antibody.
Cross-Reactivity:	Human, Mouse (Murine), Rat (Rattus)
Purification:	Antigen Affinity Purified from Pooled Serum

Target Details

Target:	NMDAR2A (GRIN2A)
Alternative Name:	GRIN2A (GRIN2A Products)

Target Details

Background: The ion channels activated by glutamate are typically divided into two classes. Glutamate receptors that are activated by kainate and α -amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as kainate/AMPA receptors (K/AMPA). Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR). The NMDAR plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer's, epilepsy and ischemic neuronal cell death (Grosshans et al., 2002, Wenthold et al., 2003, Carroll and Zukin, 2002). The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS (Lovinger et al., 1989, Alvestad et al., 2003, Snell et al., 1996). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999). The rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned. The NR1 protein can form NMDA activated channels when expressed in *Xenopus* oocytes but the currents in such channels are much smaller than those seen in situ. Channels with more physiological characteristics are produced when the NR1 subunit is combined with one or more of the NMDAR2 (NR2 A-D) subunits. Anti-NMDA Receptor, NR2A Subunit Western blot of 10 μ g of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~180k NR2A subunit of the NMDA receptor.

Molecular Weight: 180 kDa

Gene ID: 24409

UniProt: [Q00959](#)

Pathways: [Synaptic Membrane](#), [Regulation of long-term Neuronal Synaptic Plasticity](#)

Application Details

Application Notes: Recommended Dilution: WB: 1:1000 IHC (frozen sections, unpublished observations): 1:1000 to 1:2000 IP: 3 μ l per 200 μ g lysate Quality Control: Western blots performed on each lot.

Restrictions: For Research Use only

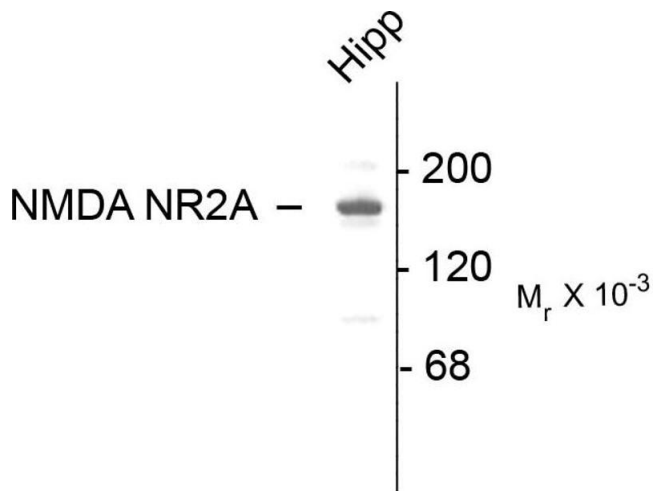
Handling

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Buffer: Lyophilized

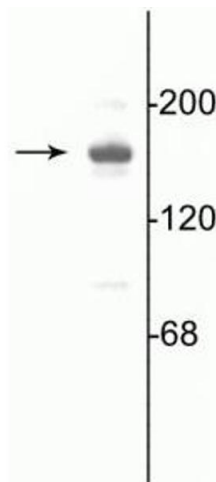
Storage: -20 °C

Product cited in: Morimura, Yasuda, Yamaguchi, Katayama, Hatayama, Tomioka, Odagawa, Kamiya, Iwayama, Maekawa, Nakamura, Matsuzaki, Tsujii, Yamada, Yoshikawa, Aruga: "Autism-like behaviours and enhanced memory formation and synaptic plasticity in Lrhn2/SALM1-deficient mice." in: **Nature communications**, Vol. 8, pp. 15800, (2018) ([PubMed](#)).



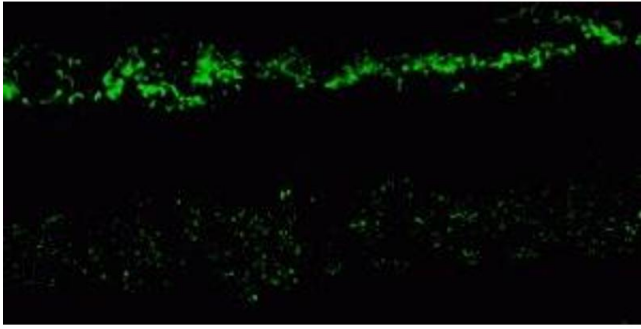
Western Blotting

Image 1. Western blots of 10 ug of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~180k NR2A subunit of the NMDA receptor.



Western Blotting

Image 2. Western blot of 10 µg of rat hippocampal lysate showing specific immunolabeling of the ~180 kDa NR2A subunit of the NMDA receptor.



Immunostaining

Image 3. Immunostaining of rabbit retina showing NR2A in the rod and cone photoreceptors in the