

Datasheet for ABIN361405
anti-GRIN1/NMDAR1 antibody (AA 1-564)[Go to Product page](#)

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Overview

Quantity:	15 µg
Target:	GRIN1/NMDAR1 (GRIN1)
Binding Specificity:	AA 1-564
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This GRIN1/NMDAR1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP)

Product Details

Immunogen:	Fusion protein containing amino acids 1-564 of the NR1 subunit
Clone:	R1JHL
Specificity:	Specific for the ~120k NR1 subunit of the NMDA receptor. The antibody has been directly tested for reactivity in Western blots in rat and mouse tissues.
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Purification:	Culture supernatant

Target Details

Target:	GRIN1/NMDAR1 (GRIN1)
Alternative Name:	GRIN1 (GRIN1 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-NMDAR, NR1 Subunit Western blot of 10 µg of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~120k NR1 subunit of the NMDA receptor.

Molecular Weight: ~120 kDa

Gene ID: 24408

UniProt: [P35439](#)

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

Application Details

Application Notes: Recommended Dilution: WB: 1:1000 IP: 3 µg per 200 µg lysate

Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: Lyophilized

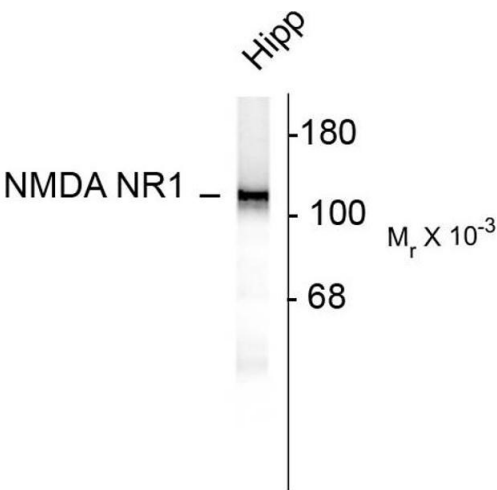
Storage: -20 °C

Publications

Product cited in: Ekuni, Tomofuji, Irie, Kasuyama, Umakoshi, Azuma, Tamaki, Sanbe, Endo, Yamamoto, Nishida,

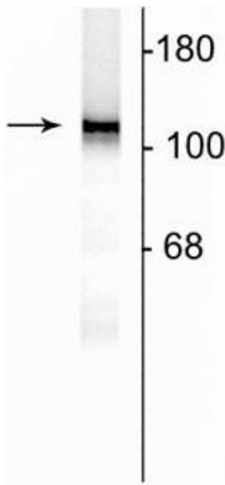
Morita: "Effects of periodontitis on aortic insulin resistance in an obese rat model." in:
Laboratory investigation; a journal of technical methods and pathology, Vol. 90, Issue 3, pp.
348-59, (2010) ([PubMed](#)).

Validation report #104331 for Multiplex Immunohistochemistry (mIHC)



Western Blotting

Image 1. Western blots of 10 ug of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~120k NR1 subunit of the NMDA receptor.



Western Blotting

Image 2. Western blot of 10 µg of rat hippocampal lysate showing specific immunolabeling of the ~120 kDa NR1 subunit of the NMDA receptor.