

Datasheet for ABIN7043234

anti-GRIN3B antibody (Extracellular)



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2 Images

Overview

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| Quantity: | 50 µL |
| Target: | GRIN3B |
| Binding Specificity: | AA 363-376, Extracellular |
| Reactivity: | Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This GRIN3B antibody is un-conjugated |
| Application: | Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF) |

Product Details

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| Purpose: | A Rabbit Polyclonal Antibody to NMDA Receptor 3B (GRIN3B) |
| Immunogen: | Immunogen: Synthetic peptide Immunogen Sequence: (C)HVSRLFVKVWLSLRD, corresponding to amino acid residues 363-376 of rat NMDAR3B |
| Isotype: | IgG |
| Specificity: | Extracellular, N-terminus |
| Cross-Reactivity: | Mouse, Rat |
| Predicted Reactivity: | Mouse - identical, human - 13,14 amino acid residues identical |
| Characteristics: | Anti-NMDAR3B (GRIN3B) (extracellular) Antibody (ABIN7043234, ABIN7044366 and ABIN7044367) is a highly specific antibody directed against an epitope of the rat NMDA |

Product Details

receptor 3B (NR3B). The antibody can be used in western blot and immunohistochemistry applications. The antibody recognizes an extracellular epitope and can potentially be used for detecting the receptor in living cells. It has been designed to recognize NR3B from rat, mouse and human samples.

Purification: Affinity purified on immobilized antigen.

Target Details

Target: GRIN3B

Alternative Name: GRIN3B ([GRIN3B Products](#))

Background: NR3B, GluN3B, Ionotropic glutamate receptor NMDA 3B, N-methyl-D-aspartate subunit 3B, The NMDA receptors (NMDARs) are members of the glutamate receptor family of ion channels that also include the AMPA and Kainate receptors. The NMDA receptors are encoded by seven genes: one NMDAR1 (or NR1) subunit, four NR2 (NR2A-NR2D) and two NR3 (NR3A-NR3B) subunits. The functional NMDA receptor appears to be a heterotetramer composed of two NMDAR1 and two NMDAR2 subunits. Whereas the NMDAR2 subunits that assemble with the NMDAR1 subunit can be either of the same kind (i.e. two NMDAR2A subunits) or different (one NMDAR2A with one NMDAR2B). NMDAR3 subunits can substitute the NMDAR2 subunits in their complex with the NMDAR1 subunit. The NMDAR is unique among ligand-gated ion channels in that it requires the simultaneous binding of two obligatory agonists: glycine and glutamate that bind to the NMDAR1 and NMDAR2 binding sites respectively. Another unique characteristic of the NMDA receptors is their dependence on membrane potential. At resting membrane potentials the channels are blocked by extracellular Mg²⁺. Neuronal depolarization relieves the Mg²⁺ blockage and allows ion influx into the cells. NMDA receptors are strongly selective for Ca²⁺ influx differing from the other glutamate receptor ion channels that are non-selective cation channels. Ca²⁺ entry through the NMDAR regulates numerous downstream signaling pathways including long term potentiation (a molecular model of memory) and synaptic plasticity that may underlie learning. In addition, the NMDA receptors have been implicated in a variety of neurological disorders including epilepsy, ischemic brain damage, Parkinson's and Alzheimer's disease. The expression and function of NMDA receptors are modulated by a variety of factors including receptor trafficking to the synapses and internalization as well as phosphorylation and interaction with other intracellular proteins.

Alternative names: NMDAR3B (GRIN3B), NR3B, GluN3B, Ionotropic glutamate receptor NMDA 3B, N-methyl-D-aspartate subunit 3B

Target Details

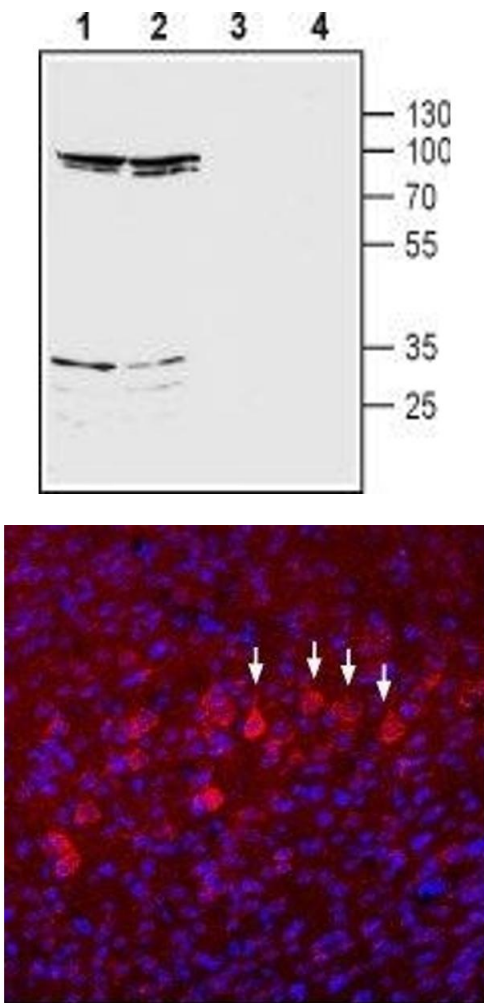
| | |
|-----------------|---------------------------|
| Gene ID: | 170796 |
| NCBI Accession: | NM_138690 |
| UniProt: | Q8VHN2 |

Application Details

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| Application Notes: | Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:100-1:400 Application Dilutions Western blot wb: 1:200 |
| Comment: | Cited Application: ICC Negative Control: (ABIN7235642) Blocking Peptide: (ABIN7235642) |
| Restrictions: | For Research Use only |

Handling

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| Format: | Lyophilized |
| Reconstitution: | Reconstitute with double distilled water (DDW) to a concentration of 1.0 mg/mL. |
| Concentration: | 1 mg/mL |
| Buffer: | PBS pH 7.4 |
| Storage: | 4 °C, -20 °C |
| Storage Comment: | Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min). |



Western Blotting

Image 1. Western blot analysis of mouse (lanes 1 and 3) and rat (lanes 2 and 4) brain lysates: - 1,2. Anti-NMDAR3B (GRIN3B) (extracellular) Antibody (ABIN7043234, ABIN7044366 and ABIN7044367), (1:200).3,4. Anti-NMDAR3B (GRIN3B) (extracellular) Antibody, preincubated with NMDAR3B/GRIN3B (extracellular) Blocking Peptide (#BLP-GC031).

Immunohistochemistry

Image 2. Expression of NR3B in mouse neocortex - Immunohistochemical staining of immersion-fixed, free floating mouse brain frozen sections using Anti-NMDAR3B (GRIN3B) (extracellular) Antibody (ABIN7043234, ABIN7044366 and ABIN7044367), (1:100). NR3B expression (red) is most striking in pyramidal neurons (arrows). DAPI staining of cell nuclei (blue) was used as a general cellular marker.