Datasheet for ABIN7043230

anti-GRIN2B antibody (Extracellular)

4 Images

Go to Product page

Overview

Quantity:	25 µL
Target:	GRIN2B
Binding Specificity:	Extracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GRIN2B antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP), Immunochromatography (IC), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to NMDA Receptor 2B (GluN2B)
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)NTHEKRIYQSNMLNR, corresponding to amino acid residues 323-337 of rat NMDA receptor 2B
Isotype:	IgG
Specificity:	Extracellular, N-terminus
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Human,mouse - identical
Characteristics:	Anti-NMDAR2B (GluN2B) (extracellular) Antibody (ABIN7043230, ABIN7044326 and

Product Details

	ABIN7044327) is a highly specific antibody directed against an epitope of the rat protein. The antibody can be used in western blot, immunocytochemistry, live cell imaging, immunohistochemistry, and immunoprecipitation applications. It has been designed to recognize GluN2B from human, rat, and mouse samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	GRIN2B
Alternative Name:	GRIN2B (GRIN2B Products)
Background:	NMDA receptor 2B, Ionotropic glutamate receptor subunit ε2, N-methyl-D-aspartate receptor subunit 2B, GRIN2B, NR2B,The NMDA receptors 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.NMDA receptors expression and function 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: NMDAR2B (GluN2B), NMDA receptor 2B, Ionotropic glutamate receptor subunit epsilon2, N-methyl-D-aspartate receptor subunit 2B, GRIN2B, NR2B

Target Details

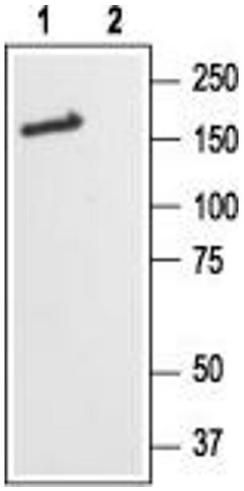
Gene ID:	24410
NCBI Accession:	NM_000834
UniProt:	Q00960
Pathways:	Response to Growth Hormone Stimulus, Synaptic Membrane, Feeding Behaviour, Regulation of long-term Neuronal Synaptic Plasticity

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:100 Application Dilutions Western blot wb: 1:600
Comment:	Cited Application: IP|IHC|ICC|IFC Negative Control: (ABIN7235630) Blocking Peptide: (ABIN7235630)
Restrictions:	For Research Use only

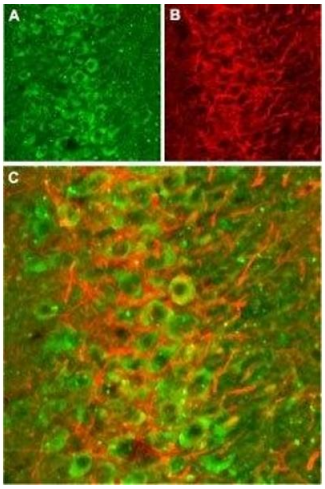
Handling

Format:	Lyophilized
Reconstitution:	Recosntitute 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).



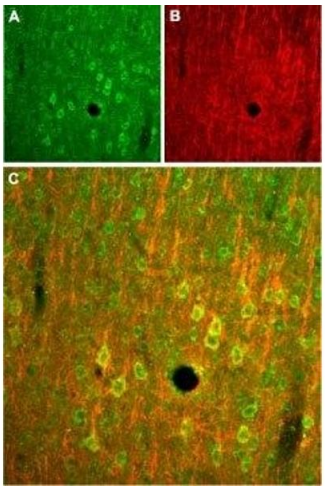
Western Blotting

Image 1. Western blot analysis of rat brain lysates: - 1. Anti-NMDAR2B (GluN2B) (extracellular) Antibody (ABIN7043230, ABIN7044326 and ABIN7044327), (1:600).2. Anti-NMDAR2B (GluN2B) (extracellular) Antibody, preincubated with NMDAR2B/GluN2B (extracellular) Blocking Peptide (#BLP-GC003).



Immunohistochemistry

Image 2. Expression of NMDA receptor 2B in rat hippocampus - Immunohistochemical staining of rat hippocampal CA1 frozen sections stained with Anti-NMDAR2B (GluN2B) (extracellular) Antibody (ABIN7043230, ABIN7044326 and ABIN7044327), (1:100). A. NMDAR2B (green) appears in the pyramidal layer of CA1. B. Staining of neurofilament 200 (red) identifies neuronal processes. C. Confocal merge demonstrates localization of NMDAR2B in cells and not in processes.



Immunohistochemistry

Image 3. Expression of NMDA receptor 2B in rat cortex - Immunohistochemical staining of rat parietal cortex frozen sections stained with Anti-NMDAR2B (GluN2B) (extracellular) Antibody (ABIN7043230, ABIN7044326 and ABIN7044327), (1:100). A. NMDAR2B (green) appears in the pyramidal layer of layer 5. B. Staining of neurofilament 200 (red) identifies neuronal processes. C. Confocal merge demonstrates localization of NMDAR2B in cells.

Please check the product details page for more images. Overall 4 images are available for ABIN7043230.