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Product datasheet for TA328844

Grin3b Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)HVSRHFKVWSLRRD, corresponding to amino acid residues 363-376 of rat NMDAR3B. Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	glutamate ionotropic receptor NMDA type subunit 3B
Database Link:	NP_579842 Entrez Gene 170483 MouseEntrez Gene 170796 Rat Q8VHN2

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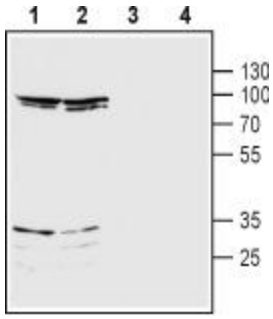
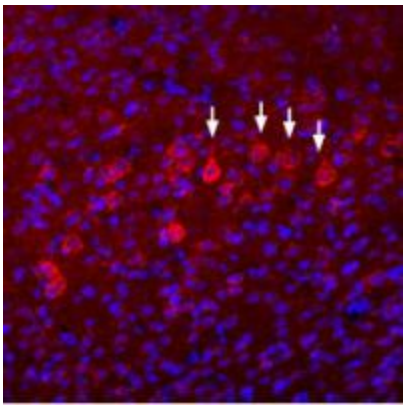
Background: The NMDA receptors (NMDARs) are members of the glutamate receptor family of ion channels that also include the AMPA and Kainate receptors. The NMDA receptors are encoded by seven genes: one NMDAR1 (or NR1) subunit, four NR2 (NR2A-NR2D) and two NR3 (NR3A-NR3B) subunits. The functional NMDA 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, Parkinsonâ??s and Alzheimerâ??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.

Synonyms: NMDAR3B; NR3B

Product images:



Western blot analysis of mouse (lanes 1 and 3) and rat (lanes 2 and 4) brain lysates: 1, 2. Anti-NMDA Receptor 3B (GluN3B) (extracellular) antibody, (1:200). 3, 4. Anti-NMDA Receptor 3B (GluN3B) (extracellular) antibody, preincubated with the control peptide antigen.



Expression of NMDA Receptor 3B in mouse neocortex. Immunohistochemical staining of immersion-fixed, free floating mouse brain frozen sections using Anti-NMDA Receptor 3B (GluN3B) (extracellular) antibody, (1:100). NMDAR3B expression (red) is most striking in pyramidal neurons (arrows). DAPI staining of cell nuclei (blue) was used as a general cellular marker.