

Rabbit NMDAR2B Polyclonal Antibody | anti-NMDAR2B antibody

Phospho-NMDAR2B (Ser1284) Antibody

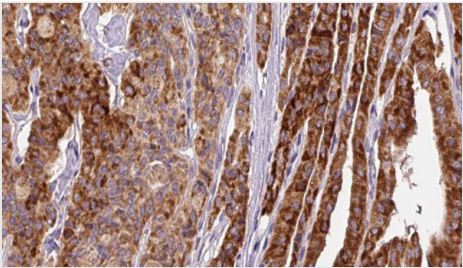
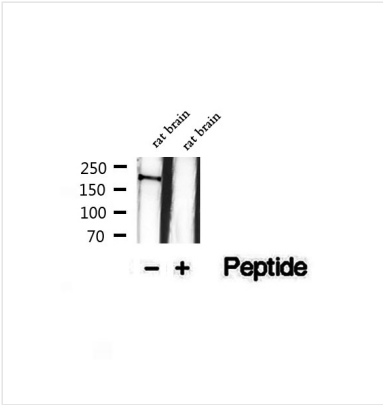
CATALOG # AAA321355	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

NMDAR2B; Polyclonal Antibody; Phospho-NMDAR2B (Ser1284) Antibody; AW490526; EIEE27; Glutamate [NMDA] receptor subunit epsilon 2; Glutamate [NMDA] receptor subunit epsilon-2; Glutamate Receptor Ionotropic N Methyl D Aspartate 2B; Glutamate Receptor Ionotropic N Methyl D Aspartate subunit 2B; Glutamate receptor ionotropic NMDA2B; Glutamate receptor subunit epsilon 2; Glutamate receptor; ionotropic; NMDA2B (epsilon 2); GRIN 2B; GRIN2B; hNR 3; hNR3; MGC142178; MGC142180; MRD6; N methyl D aspartate receptor channel subunit epsilon 2; N methyl D aspartate receptor subtype 2B; N methyl D aspartate receptor subunit 2B; N methyl D aspartate receptor subunit 3; N-methyl D-aspartate receptor subtype 2B; N-methyl-D-aspartate receptor subunit 3; NMDA NR2B; NMDA R2B; NMDE2; NMDE2_HUMAN; NME2; NR2B; NR3; anti-NMDAR2B antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-NMDAR2B (Ser1284) antibody detects endogenous levels of NMDAR2B.
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1484
Applicable Applications for anti-NMDAR2B antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NMDAR2B around the phosphorylation site of Ser1284.
Subcellular Location	Cell Membrane. Cell Junction > Synapse > Postsynaptic Cell Membrane.
Tissue Specificity	Primarily found in the fronto-parieto-temporal cortex and hippocampus pyramidal cells, lower expression in the basal ganglia.
Predicted Cross Reactivity	Pig, Bovine, Horse, Rabbit, Dog
Similarity	Pig (100%), Bovine (92%), Horse (100%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Epitope	Phospho Ser1284
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA321355 at 1/100 staining Human thyroid cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of extracts of rat brain tissue, using Phospho-NMDAR2B (Ser1284) Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-NMDAR2B antibody

Function: Component of NMDA receptor complexes that function as heterotetrameric, ligand-gated ion channels with high calcium permeability and voltage-dependent sensitivity to magnesium. Channel activation requires binding of the neurotransmitter glutamate to the epsilon subunit, glycine binding to the zeta subunit, plus membrane depolarization to eliminate channel inhibition by Mg2+ (PubMed:8768735, PubMed:26919761, PubMed:26875626, PubMed:28126851). Sensitivity to glutamate and channel kinetics depend on the subunit composition (PubMed:8768735, PubMed:26875626). In concert with DAPK1 at extrasynaptic sites, acts as a central mediator for stroke damage. Its phosphorylation at Ser-1303 by DAPK1 enhances synaptic NMDA receptor channel activity inducing injurious Ca2+ influx through them, resulting in an irreversible neuronal death. Contributes to neural pattern formation in the developing brain. Plays a role in long-term depression (LTD) of hippocampus membrane currents and in synaptic plasticity (By similarity).

Subunit Structure: Heterotetramer. Forms heterotetrameric channels composed of two zeta subunits (GRIN1), and two epsilon subunits (GRIN2A, GRIN2B, GRIN2C or GRIN2D) (in vitro) (PubMed:8768735, PubMed:26919761, PubMed:26875626, PubMed:28126851, PubMed:26912815). Can also form heterotetrameric channels that contain at least one zeta subunit (GRIN1), at least one epsilon subunit, plus GRIN3A or GRIN3B (By similarity). In vivo, the subunit composition may depend on the expression levels of the different subunits (Probable). Found in a complex with GRIN1 and GRIN3B. Found in a complex with GRIN1, GRIN3A and PPP2CB. Interacts with PDZ domains of PATJ, DLG3 and DLG4. Interacts with HIP1 and NETO1 (By similarity). Interacts with MAGI3 (PubMed:10748157). Interacts with DAPK1 (By similarity). Found in a complex with GRIN1 and PRR7 (PubMed:27458189). Interacts with PRR7 (PubMed:27458189).

Post-translational Modifications: Phosphorylated on tyrosine residues (By similarity). Phosphorylation at Ser-1303 by DAPK1 enhances synaptic NMDA receptor channel activity (By similarity).

Similarity: A hydrophobic region that gives rise to the prediction of a transmembrane span does not cross the membrane, but is part of a discontinuously helical region that dips into the membrane and is probably part of the pore and of the selectivity filter. Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. NR2B/GRIN2B subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	167003331
NCBI GeneID	2904
NCBI Accession #	NP_000825.2
NCBI GenBank Nucleotide #	NM_000834.4
UniProt Accession #	Q13224; Q12919; Q13220; Q13225; Q14CU4; Q9UM56
Molecular Weight	Observed: 190 kDa Predicted: 167 kDa
NCBI Official Full Name	glutamate receptor ionotropic, NMDA 2B

NCBI Official Synonym Full Names	glutamate ionotropic receptor NMDA type subunit 2B
NCBI Official Symbol	GRIN2B
NCBI Official Synonym Symbols	NR3; MRD6; NR2B; hNR3; EIEE27; GluN2B; NMDAR2B
NCBI Protein Information	glutamate receptor ionotropic, NMDA 2B
UniProt Protein Name	Glutamate receptor ionotropic, NMDA 2B
UniProt Gene Name	GRIN2B
UniProt Synonym Gene Names	NMDAR2B; NR2B; NR3; hNR31 PublicationManual assertion based on opinion iniRef.1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/nmdar2b-antibody-immunohistochemistry-western-blot-elisa/321355>