www.antibodiesinc.com
orders@antibodiesinc.com
530-758-4400

PRODUCT DATASHEET

Anti-NMDA NR2A Subunit (Tyr1325) Antibody

phosphosolutions ANTIBODIES THAT WORK Pooled Serum

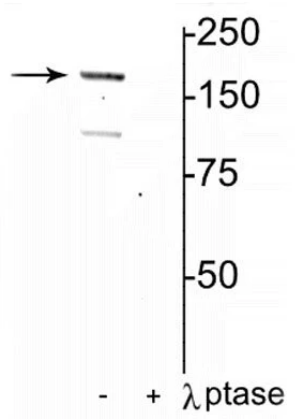
Product Details

Available Variants	100 µL (SKU:p1514-1325) 25 µL (SKU:p1514-1325t)
Conjugate	Unconjugated
Isotype	IgG
Gene Name	GRIN2A
Host Species	Rabbit
Format	Antigen Affinity Purified from Pooled Serum
Physical State	Liquid
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
Production Notes	Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.
Applications	ELISA, WB
Dilution Ranges	WB: 1:1000 WB Brain: 1:1000
Species Reactivity	Mouse, Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyr1325 of the rat NMDA receptor, conjugated to keyhole limpet hemocyanin (KLH).
Specificity	Specific for endogenous levels of the ~180k NMDAR NR2A-subunit protein phosphorylated at Tyr1325 in Western blots. Immunolabeling is completely eliminated by treatment with λ-phosphatase.
Molecular Weight	180 kDa
Quality Control	Western blots performed on each lot.

Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Antibody Registry ID	AB_2492174
UniProt ID	Q00959 UniProt Summary: Component of N-methyl-D-aspartate (NMDA) receptors (NMDARs) that function as heterotetrameric, ligand-gated cation channels with high calcium permeability and voltage-dependent block by Mg(2+) (PubMed:20890276, PubMed:23933818, PubMed:23933819, PubMed:23933820, PubMed:24504326, PubMed:26875626, PubMed:26919761, PubMed:28242877, PubMed:36117210, PubMed:38538865, PubMed:8768735). NMDARs participate in synaptic plasticity for learning and memory formation by contributing to the slow phase of excitatory postsynaptic current, long-term synaptic potentiation, and learning (By similarity). Channel activation requires binding of the neurotransmitter L-glutamate to the GluN2 subunit, glycine or D-serine binding to the GluN1 subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:23933818, PubMed:23933819, PubMed:23933820, PubMed:24504326, PubMed:26875626, PubMed:26919761, PubMed:27288002, PubMed:28095420, PubMed:28105280, PubMed:28126851, PubMed:28182669, PubMed:29644724, PubMed:38307912, PubMed:8768735). NMDARs mediate simultaneously the potassium efflux and the influx of calcium and sodium (By similarity). Each GluN2 subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, Ca2(+) permeability, and binding to allosteric modulators (PubMed:26875626, PubMed:26919761). Participates in the synaptic plasticity regulation through activation by the L-glutamate releaseed by BEST1, into the synaptic cleft, upon F2R/PAR-1 activation in astrocyte (By similarity). {ECO:0000250|UniProtKB:P35436, ECO:0000250|UniProtKB:P35438, ECO:0000269|PubMed:20890276, ECO:0000269|PubMed:23933818, ECO:0000269|PubMed:23933819, ECO:0000269|PubMed:23933820, ECO:0000269|PubMed:24504326, ECO:0000269|PubMed:26875626, ECO:0000269|PubMed:26919761, ECO:0000269|PubMed:27288002, ECO:0000269|PubMed:28095420, ECO:0000269|PubMed:28105280, ECO:0000269|PubMed:28126851, ECO:0000269|PubMed:28182669, ECO:0000269|PubMed:28242877, ECO:0000269|PubMed:29644724, ECO:0000269|PubMed:36117210, ECO:0000269|PubMed:38307912, ECO:0000269|PubMed:38538865, ECO:0000269|PubMed:8768735}.
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.

Expected Reactivity	Bovine, Canine, Hamster, Sheep
Post Translational Modification Type	Phosphorylated
Post Translational Modification Residue	Tyr1325
NCBI Gene ID	24409

Product Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~180 kDa NR2A subunit of the NMDAR phosphorylated at Tyr1325 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by lysate treatment with lambda phosphatase (400 units/100uL lysate for 30 min).