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Anti-Phospho-NMDA Receptor NR2A Subunit (Tyr1325) GRIN2A Antibody

Catalog Number: P01949

About GRIN2A

The ion channels activated by glutamate that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR). The NMDAR plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer's, epilepsy and ischemic neuronal cell death (Grosshans et al., 2002; Wenthold et al., 2003; Carroll and Zukin, 2002). The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS (Lovinger et al., 1989; Alvestad et al., 2003; Snell et al., 1996). Channels with physiological characteristics are produced when the NR1 subunit is combined with one or more of the NMDAR2 (NR2 A-D) subunits (Ishii et al., 1993). Recently, phosphorylation of Tyrosine 1325 of the NR2A subunit has been shown to be increased in human brain tissue sections from HIV-infected individuals with encephalitis (King et al., 2010). In addition, Tyr-1325 phosphorylation has been linked with depression-related behavior (Taniguchi et al., 2009).

Overview

Product Name	Anti-Phospho-NMDA Receptor NR2A Subunit (Tyr1325) GRIN2A Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Phospho-NMDA Receptor NR2A Subunit (Tyr1325) GRIN2A Antibody (Catalog # P01949). Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal 608
Formulation	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
Storage Instructions	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. After date of receipt, stable for at least 1 year at -20°C.
Host	Rabbit
Uniprot ID	Q00959

Technical Details

Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyr1325 of the rat NMDA receptor, conjugated to keyhole limpet hemocyanin (KLH). Immunogen species is Rat.
Predicted Reactive Species	Bovine, Canine, Hamster, Sheep
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

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Form	Liquid
Concentration	0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: WB: 1:1000

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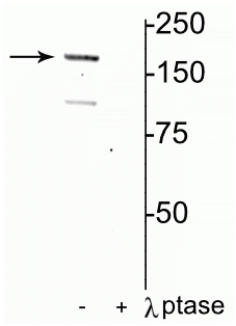
Anti-Phospho-NMDA Receptor NR2A Subunit (Tyr1325) GRIN2A Antibody (P01949) Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~180 kDa NR2A subunit of the NMDAR phosphorylated at Tyr^{1325} 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).

1 Publications Citing This Product

1. PubMed ID: 33099751, Liang Y,Ma Y,Wang J,Nie L,Hou X,Wu W,Zhang X,Tian Y. Leptin Contributes to Neuropathic Pain via Extrasynaptic NMDAR-nNOS Activation. Mol Neurobiol.2020 Oct 25.doi:10.1007/s12035-020-02180-1.Epub ahead of print.PMID:33099751.

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