

Anti-Phospho-GluR1 (Ser845) Gria1 Antibody

Catalog Number: P02677-1

About GRIA1

The ion channels activated by glutamate are typically divided into two classes. Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR) while those activated by alpha-amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as AMPA receptors (AMPA). The AMPAR are comprised of four distinct glutamate receptor subunits designated (GluR1-4) and they play key roles in virtually all excitatory neurotransmission in the brain (Keinänen et al., 1990; Hollmann and Heinemann, 1994). The GluR1 subunit is widely expressed throughout the nervous system. Phosphorylation of Ser-845 on GluR1 is thought to be mediated by PKA and phosphorylation of this site increases the conductance of the AMPAR (Roche et al., 1996; Banke et al., 2000). In addition, phosphorylation of this site has been linked to synaptic plasticity as well as learning and memory (Lee et al., 2003; Esteban et al., 2003).

Overview

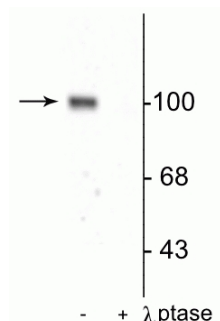
Product Name	Anti-Phospho-GluR1 (Ser845) Gria1 Antibody
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Phospho-GluR1 (Ser845) Gria1 Antibody (Catalog # P02677-1). Tested in WB, IHC applications. This antibody reacts with Mouse, Rat.
Conjugate	FITC
Application	IHC, WB
Clonality	Polyclonal 10C3
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	P19490

Technical Details

Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser845 of rat GluR1, conjugated to keyhole limpet hemocyanin (KLH). Immunogen species is Rat.
Predicted Reactive Species	Human, Primate
Cross Reactivity	Detects ~20kDa. Does not cross-react with alphaB-crystallin, betaL-crystallin, ̳H-crystallin, gamma-crystallin, HSP25, HSP27 or HSP47 proteins.
Isotype	IgG

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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>WB: 1:1000</p> <p>IHC: 1:1000</p>

Anti-Phospho-GluR1 (Ser845) Gria1 Antibody (P02677-1) Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~100 kDa GluR1 protein phosphorylated at Ser⁸⁴⁵ in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with lambda phosphatase (gamma-Ptase, 1200 units for 30 min).

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