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Datasheet for 612-401-C83

GluR1 phospho S845 Antibody

Overview

Description:	Anti-GluR1 pS845 (RABBIT) Antibody - 612-401-C83
Item No.:	612-401-C83
Size:	150 µL
Applications:	IHC, WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Anti-GluR1 pS845 antibody recognizes phosphorylated GluR1. 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 α-amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as AMPA receptors (AMPAR). 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. The GluR1 subunit is widely expressed throughout the nervous system. Phosphorylation of Ser845 on GluR1 is thought to be mediated by PKA and phosphorylation of this site increases the conductance of the AMPAR. In addition, phosphorylation of this site has been linked to synaptic plasticity as well as learning and memory. Anti-GluR1 pS845 antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.
Synonyms:	Glutamate receptor 1, GluR1, AMPA-selective glutamate receptor 1, GluR-A, GluR-K1, Glutamate receptor ionotropic, AMPA 1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Gria1
Reactivity:	Mouse, Rat

PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-GluR1 pS845 Antibody was produced by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Ser845.
Purity/Specificity:	Anti-GluR1 pS845 Antibody is directed against GluR1 protein phosphorylated at S845. The antibody was prepared from monospecific antiserum by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. Minimal reactivity occurs against non-phosphorylated GluR1. Reactivity is completely eliminated by treatment with lambda-Phosphatase. Reactivity against GluR1 occurs from rat sources. However, reactivity is expected against the following species based on 100% sequence homology: human, mouse, and non-human primates.
Relevant Links:	• NCBI - NP_113796.1 • UniProtKB - P19490 • GeneID - 50592

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-GluR1 pS845 antibody is tested for use in IHC and Western Blotting and suitable for IF and ELISA. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 100 kDa in size corresponding to GluR1 protein phosphorylated at Ser 845 in Western Blots of rat brain extracts.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1000 - 10,000
IF:	1:200
IHC:	1:1000
WB:	1:1000

Formulation

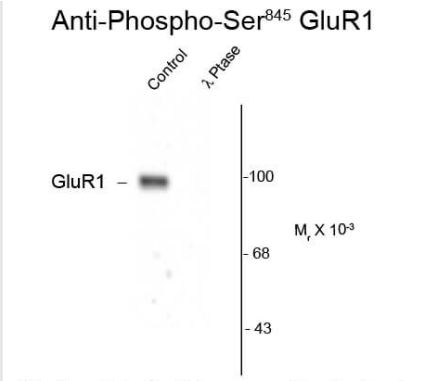
Physical State:	Liquid
Concentration:	Titrated value sufficient to run approximately 10 mini blots.
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5

Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western blot of rat hippocampal lysate showing phospho-specific immunolabeling of the ~100k GluR1 protein phosphorylated at Ser845.

Western Blot
Western Blot of Rabbit GluR1-Subunit Ser845 Antibody. Lane 1: rat hippocampal lysate. Lane 2: rat hippocampal lysate incubated in λ-Ptase (1200 units for 30 min). Load: 10 µg per lane. Primary antibody: GluR1 Ser845 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~100kDA/~100kDA for GluR1 protein phosphorylated at Ser845. Other band(s): none.

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