Affinity Purified Rabbit Anti-Phospho-GluR1 (S831) Certificate of Analysis

ORDERING INFORMATION

Catalog Number: PPS007

Lot Number: 1635830

Size: 150 µL (sufficient for 10 mini-blots)

Storage: \leq -20° C

- Specificity: Human, mouse, rat ~100 kDa GluR1 protein phosphorylated at S831
- Immunogen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-S831 of GluR1

Ig Type: rabbit IgG

Applications: Western blot



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~100 kDa GluR1 protein phosphorylated at S831 (Control). The phosphospecificity of this labeling is demonstrated by treatment with 1200 U of λ Phosphatase (λ -PPase) for 30 minutes before being exposed to the Anti-Phospho-GluR1 (S831). The immunolabeling is completely eliminated by treatment with λ -PPase.

Description

Rat GluR1 is a 907 amino acid, 4-transmembrane protein that belongs to the glutamategated ion channel family. It is one of four AMPA receptor subunits that form a functional heterotetrameric glutamate receptor. GluR1 only interacts with GluR2. GluR1 has two key serine residues in the C-terminal extracellular region. Serine 831 is constitutively unphosphorylated. Upon exposure to a neurotransmitter, it is phosphorylated by CaMKII leading to a potentiation of glutamate-mediated current. Serine 845 is constitutively phosphorylated by Protein Kinase A (PKA). The presence of the phosphate insures membrane localization of the subunit. Following NMDA receptor activation, S845 is dephosphorylated with subsequent subunit internalization.

Preparation

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphorylated peptide affinity columns.

Formulation

150 μL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μg/mL BSA and 50% glycerol.

Storage

For long-term storage, \leq -20° C is recommended. Product is stable at \leq -20° C for at least 1 year.

Specificity

Specific for the ~100 kDa GluR1 protein phosphorylated at S831 in Western blots of rat brain extracts.

Applications Western blot - 1:1000

Optimal dilutions should be determined by each laboratory for each application.

References

- 1. Ehlers, M.D. (2000) Neuron 28:511.
- 2. Soderling, T.R. and V.A. Derkach (2000) Trends Neurosci. 23:75.
- 3. Groc, L. et al. (2006) Trends Neurosci. Jan. 26 [Epub ahead of print].
- 4. Vinade, L. and A. Dosemeci (2000) Cell. Mol. Neurosci. 20:451.

Diane Wotta

an R. Whit

Quality & Regulatory Affairs

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.