

**Datasheet for 612-401-C82****GluR1 phospho S831 Antibody****Overview**

|                      |                                                  |
|----------------------|--------------------------------------------------|
| <b>Description:</b>  | Anti-GluR1 pS831 (RABBIT) Antibody - 612-401-C82 |
| <b>Item No.:</b>     | 612-401-C82                                      |
| <b>Size:</b>         | 150 µL                                           |
| <b>Applications:</b> | WB                                               |
| <b>Reactivity:</b>   | Mouse, Rat                                       |
| <b>Host Species:</b> | Rabbit                                           |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Background:</b>   | GluR1 pS831 Antibody detects 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 $\alpha$ -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. The GluR1 subunit is widely expressed throughout the nervous system. GluR1 is potentiated by phosphorylation at Ser 831 which has been shown to be mediated by either PKC or CaM kinase II. In addition, phosphorylation of this site has been linked to synaptic plasticity as well as learning and memory. Therefore, GluR1 pS831 antibody is ideal for investigators involved in Neuroscience. |
| <b>Synonyms:</b>     | Glutamate receptor 1, GluR1, AMPA-selective glutamate receptor 1, GluR-A, GluR-K1, Glutamate receptor ionotropic, AMPA 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

**Target Details**

|                         |                 |
|-------------------------|-----------------|
| <b>Gene Name:</b>       | Gria1           |
| <b>Reactivity:</b>      | Mouse, Rat      |
| <b>PTM Specificity:</b> | Phosphorylation |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Immunogen Type:</b>     | Conjugated Peptide                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Immunogen:</b>          | Anti-GluR1 pS831 Antibody was produced by repeated immunizations with a synthetic phosphopeptide corresponding to amino acid residues surrounding Ser 831.                                                                                                                                                                                                                                                                                                           |
| <b>Purity/Specificity:</b> | Anti-GluR1 pS831 Antibody is directed against rat GluR1. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. Immunolabeling is blocked by the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. Immunolabeling is completely eliminated by lambda-phosphatase treatment. Reactivity is expected from the following species based on 100% sequence homology: canine, chicken, human and mouse. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">NCBI - NP_113796.1</a></li><li>• <a href="#">UniProtKB - P19490</a></li><li>• <a href="#">GeneID - 50592</a></li></ul>                                                                                                                                                                                                                                                                                           |

## Application Details

|                             |                                                                                                                                                                                                                                                                                                          |
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| <b>Tested Applications:</b> | WB                                                                                                                                                                                                                                                                                                       |
| <b>Application Note:</b>    | Anti-GluR1 pS831 (Rabbit) antibody is tested for use in Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 100 kDa in size corresponding to the GluR1 protein phosphorylated at Ser 831 in the appropriate cell lysate or extract. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                          |
| <b>WB:</b>                  | 1:1000                                                                                                                                                                                                                                                                                                   |

## Formulation

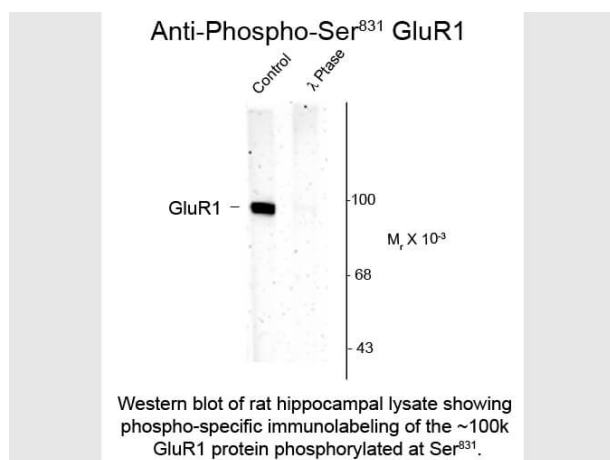
|                        |                                                                                  |
|------------------------|----------------------------------------------------------------------------------|
| <b>Physical State:</b> | Liquid                                                                           |
| <b>Concentration:</b>  | Titred value sufficient to run approximately 10 mini blots.                      |
| <b>Buffer:</b>         | 0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5                                     |
| <b>Stabilizer:</b>     | 0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol |

## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Dry Ice |
|----------------------------|---------|

|                           |                                                                                                                                                                                                                                               |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage Condition:</b> | 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. |
| <b>Expiration:</b>        | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                         |

## Images



### Western Blot

Western Blot of Rabbit anti-GluR1-Subunit Ser831 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 pS831 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: 100 kDa, 100 kDa for GluR1 pS831. Other band(s): none.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.