

## Datasheet for 612-401-D59

**Neuromodulin phospho S41 Antibody****Overview**

|                      |                                                                |
|----------------------|----------------------------------------------------------------|
| <b>Description:</b>  | Anti-Neuromodulin (GAP43) pS41 (RABBIT) Antibody - 612-401-D59 |
| <b>Item No.:</b>     | 612-401-D59                                                    |
| <b>Size:</b>         | 100 µL                                                         |
| <b>Applications:</b> | WB                                                             |
| <b>Reactivity:</b>   | Mouse, Rat                                                     |
| <b>Host Species:</b> | Rabbit                                                         |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Background:</b>   | Gap-43 pS41 antibody detects phosphorylated GAP43 at position S41. Gap43 is thought to have an important role in development and plasticity because it is expressed at high levels in neuronal growth cones during development and during axonal regeneration. There is also evidence from knockout animals that Gap-43 serves to amplify pathfinding signals from the growth cone. Gap-43 is thought to mediate at least some of these effects via interaction with actin. Importantly, phosphorylation at Ser41 by protein kinase C modulates the interaction of Gap-43 with actin and may also affect neurotransmitter release during forms of plasticity like LTP. Anti-Gap-43 pS41 antibody is ideal for investigators involved in Cell Signaling, Neuroscience, and Signal Transduction research. |
| <b>Synonyms:</b>     | Neuromodulin, Axonal membrane protein GAP-43, GAP43, Growth-associated protein 43, Protein F1, Neural phosphoprotein B-50, pp46                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

**Target Details**

|                         |                    |
|-------------------------|--------------------|
| <b>Gene Name:</b>       | Gap43              |
| <b>Reactivity:</b>      | Mouse, Rat         |
| <b>PTM Specificity:</b> | Phosphorylation    |
| <b>Immunogen Type:</b>  | Conjugated Peptide |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <b>Immunogen:</b>          | Anti-Neuromodulin Antibody was produced by repeated immunizations with a synthetic phospho-peptide corresponding to amino acid residues surrounding Ser41 of GAP43.                                                                                                                                                                                                                                                                                                                       |
| <b>Purity/Specificity:</b> | Anti-GAP43 pS41 antibody was affinity purified from monospecific antiserum by immunoaffinity purification. This antibody is specific for the phosphorylated forms of the protein. Immunolabeling is completely eliminated by treatment with lambda-Ptase. Cross reactivity with GAP43 from other species has not been determined, however, the sequence of the immunogen shows 100% homology to bovine, canine, chicken, finch, human, mouse, non-human primates, Xenopus and zebra fish. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P07936</a></li><li>• <a href="#">GeneID - 29423</a></li><li>• <a href="#">UniProtKB - P07936.1</a></li></ul>                                                                                                                                                                                                                                                                                                              |

## Application Details

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| <b>Tested Applications:</b> | WB                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Application Note:</b>    | Anti-GAP43 (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 50 kDa in size corresponding to neuromodulin protein phosphorylated at Ser41 in the appropriate cell lysate or extract. In some tissues, the antibody also recognized a higher molecular weight protein that may be an aggregate or oligomer. |
| <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

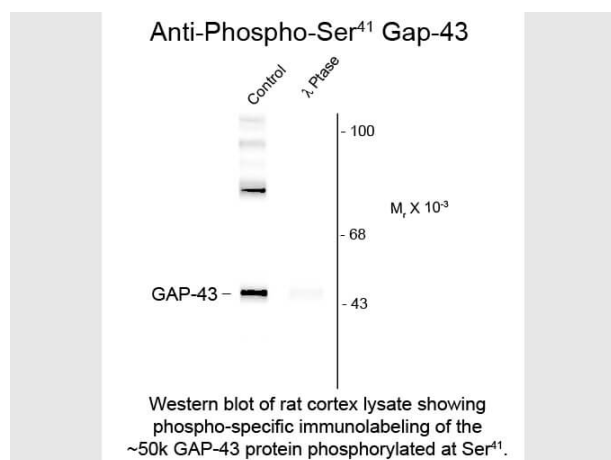
|                        |                                                                                  |
|------------------------|----------------------------------------------------------------------------------|
| <b>Physical State:</b> | Liquid                                                                           |
| <b>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. |

**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



### Western Blot

Western Blot of Rabbit anti-Neuromodulin (GAP43) pS41 antibody. Lane 1: rat cortex lysate (control). Lane 2:  $\lambda$ -Ptase. Load: 20  $\mu$ g per lane. Primary antibody: Neuromodulin (GAP43) pS41 antibody at 1:1,000 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: 50 kDa for Neuromodulin (GAP43) pS41. Other band(s): Neuromodulin (GAP43) pS41 splice variants and isoforms.

## 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.