

**Datasheet for 600-401-BL9****GNPDA1 Antibody****Overview**

|                      |                                             |
|----------------------|---------------------------------------------|
| <b>Description:</b>  | Anti-GNPDA1 (RABBIT) Antibody - 600-401-BL9 |
| <b>Item No.:</b>     | 600-401-BL9                                 |
| <b>Size:</b>         | 100 µg                                      |
| <b>Applications:</b> | ELISA, IF, IHC, WB                          |
| <b>Reactivity:</b>   | Human, Mouse, Rat                           |
| <b>Host Species:</b> | Rabbit                                      |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Glucosamine-6-phosphate deaminase (GNPDA) is an allosteric enzyme that catalyzes the reversible conversion of D-glucosamine-6-phosphate into D-fructose-6-phosphate and ammonium. GNPDA1 is one of two mammalian glucosamine-6-phosphate deaminases that are thought to have arisen through gene duplication, with the GNPDA2 protein closer in structure and activity to the E. coli enzyme. GNPDA1 possesses greater affinity for ammonium than either GNPDA2 or the E. coli enzyme suggesting that the forward reaction of D-glucosamine-6-phosphate into D-fructose-6-phosphate and ammonium is catalyzed at a slower rate than GNPDA2. |
| <b>Synonyms:</b>     | GNPDA1 Antibody, GPI, HLN, GNP1, GNPI, GNPDA, KIAA0060, Glucosamine-6-phosphate isomerase 1, Glucosamine-6-phosphate deaminase 1, GNPDA 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

**Target Details**

|                        |                                                                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name:</b>      | GNPDA1                                                                                                                                                                    |
| <b>Reactivity:</b>     | Human, Mouse, Rat                                                                                                                                                         |
| <b>Immunogen Type:</b> | Conjugated Peptide                                                                                                                                                        |
| <b>Immunogen:</b>      | Anti-GNPDA1 antibody was prepared from whole rabbit serum produced by repeated immunizations with an 18 amino acid synthetic peptide near the C-terminus of human GNPDA1. |

**Purity/Specificity:** Anti-GNPDA1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. GNPDA1 is predicted to not cross-react with GNPDA2.

**Relevant Links:**

- [UniProtKB - P46926](#)
- [GeneID - 10007](#)
- [NCBI - AAC05123](#)

## Application Details

**Tested Applications:** ELISA, IF, IHC, WB

**Application Note:** Anti-GNPDA1 Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 33 kDa in Western Blots of specific cell lysates and tissues.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

**ELISA:** 1:10,000 - 1:20,000

**IF:** 20 µg/mL

**WB:** 1-2 µg/mL

## Formulation

**Physical State:** Liquid (sterile filtered)

**Concentration:** 1 mg/mL by UV absorbance at 280 nm

**Buffer:** 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2

**Preservative:** 0.02% (w/v) Sodium Azide

**Stabilizer:** None

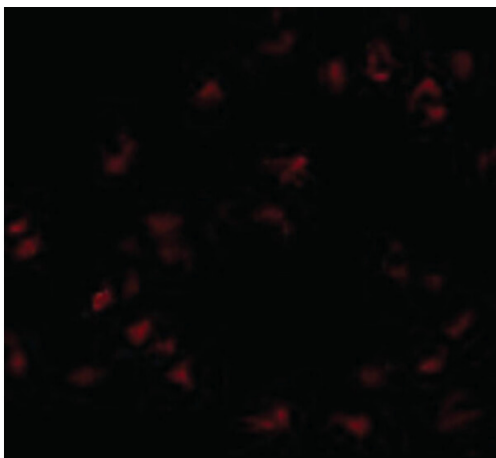
## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

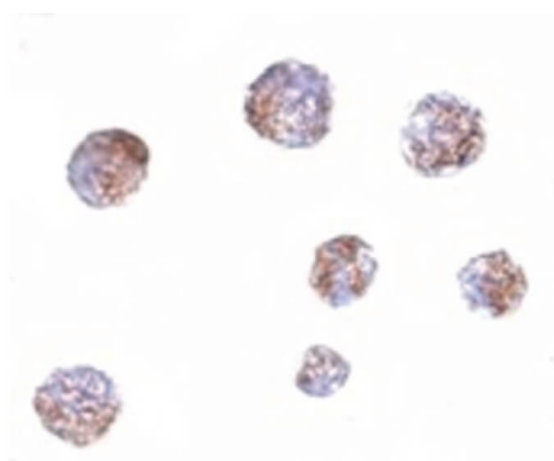
**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



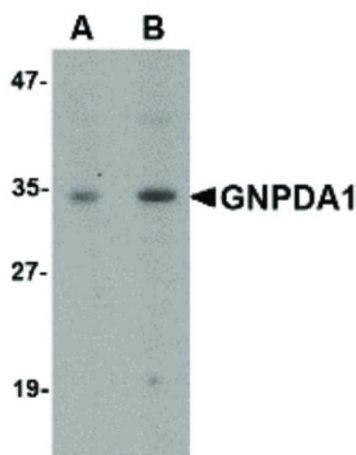
### Immunofluorescence Microscopy

Immunofluorescence Microscopy of GNPDA1 antibody.  
 Tissue: 293 cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: GNPDA1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: GNPDA1 is cytoplasmic. Staining: GNPDA1 as red fluorescent signal.



### Immunohistochemistry

Immunocytochemistry of GNPDA1 antibody. Tissue: 293 cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: GNPDA1 antibody at 5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: GNPDA1 is cytoplasmic. Staining: GNPDA1 as precipitated brown with hematoxylin purple nuclear counterstain.



### Western Blot

Western Blot of GNPDA1 antibody. Lane 1: mouse kidney lysate with GNPDA1 antibody at 1 µg/mL. Lane 2: mouse kidney lysate with GNPDA1 antibody at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 32.6 kDa, 35 kDa for GNPDA1. Other band(s): GNPDA1 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.