

**GNPDA1 Antibody (C-Terminus)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS13523****Specification**

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**GNPDA1 Antibody (C-Terminus) - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | ICC, IF, WB, IHC       |
| Primary Accession | <a href="#">P46926</a> |
| Reactivity        | Human, Mouse, Rat      |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Calculated MW     | 33kDa KDa              |

**GNPDA1 Antibody (C-Terminus) - Additional Information****Gene ID** 10007**Other Names**

Glucosamine-6-phosphate isomerase 1, 3.5.99.6, Glucosamine-6-phosphate deaminase 1, GNPDA 1, GlcN6P deaminase 1, Oscillin, GNPDA1, GNPI, HLN, KIAA0060

**Target/Specificity**

Human GNPDA1

**Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

**Precautions**

GNPDA1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

**GNPDA1 Antibody (C-Terminus) - Protein Information****Name** GNPDA1 {ECO:0000303|PubMed:26887390, ECO:0000312|HGNC:HGNC:4417}**Function**

Catalyzes the reversible conversion of alpha-D-glucosamine 6- phosphate (GlcN-6P) into beta-D-fructose 6-phosphate (Fru-6P) and ammonium ion, a regulatory reaction step in de novo uridine diphosphate-N-acetyl-alpha-D-glucosamine (UDP-GlcNAc) biosynthesis via hexosamine pathway. Deamination is coupled to aldo-keto isomerization mediating the metabolic flux from UDP-GlcNAc toward Fru-6P. At high ammonium level can drive amination and isomerization of Fru-6P toward hexosamines and UDP-GlcNAc synthesis (PubMed:<a href="http://www.uniprot.org/citations/21807125" target="\_blank">21807125</a>, PubMed:<a href="http://www.uniprot.org/citations/26887390" target="\_blank">26887390</a>). Has a role in fine tuning the metabolic fluctuations of cytosolic UDP-GlcNAc and their effects on hyaluronan synthesis that occur during tissue remodeling (PubMed:<a href="http://www.uniprot.org/citations/26887390" target="\_blank">26887390</a>). Seems to trigger calcium oscillations in mammalian eggs. These oscillations serve as the essential trigger for

egg activation and early development of the embryo (By similarity).

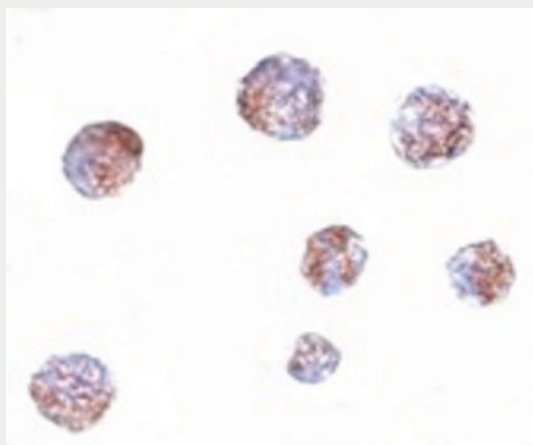
**Cellular Location**

Cytoplasm.

**GNPDA1 Antibody (C-Terminus) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

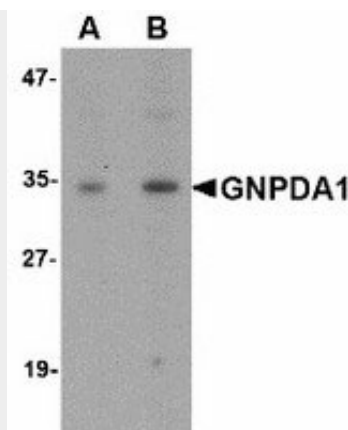
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**GNPDA1 Antibody (C-Terminus) - Images**

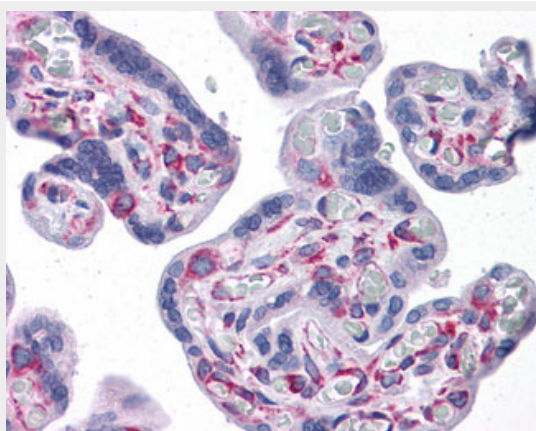
Immunocytochemistry of GNPDA1 in 293 cells with GNPDA1 antibody at 5 ug/ml.



Immunofluorescence of GNPDA1 in 293 cells with GNPDA1 antibody at 20 ug/ml.



Western blot of GNPDA1 in mouse kidney lysate with GNPDA1 antibody at (A) 1 and (B) 2 ug/ml.



Anti-GNPDA1 antibody IHC of human placenta.

### **GNPDA1 Antibody (C-Terminus) - Background**

Seems to trigger calcium oscillations in mammalian eggs. These oscillations serve as the essential trigger for egg activation and early development of the embryo (By similarity).

### **GNPDA1 Antibody (C-Terminus) - References**

- Wolosker H.,et al.FASEB J. 12:91-99(1998).
- Shevchenko V.,et al.Gene 216:31-38(1998).
- Hirata S.,et al.Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
- Nomura N.,et al.DNA Res. 1:223-229(1994).
- Ota T.,et al.Nat. Genet. 36:40-45(2004).