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

Specification

GNPDA1 Antibody (C-Terminus) - Product Information

Application	**ICC, IF, WB, IHC**
Primary Accession	P46926
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:21807125, PubMed:26887390). 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:26887390). 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).

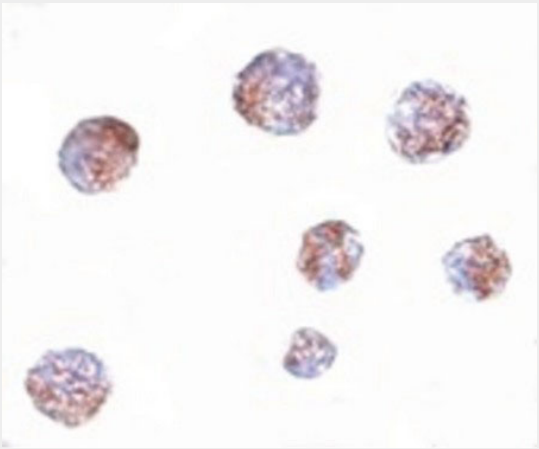
Cellular Location
Cytoplasm.

GNPDA1 Antibody (C-Terminus) - Protocols

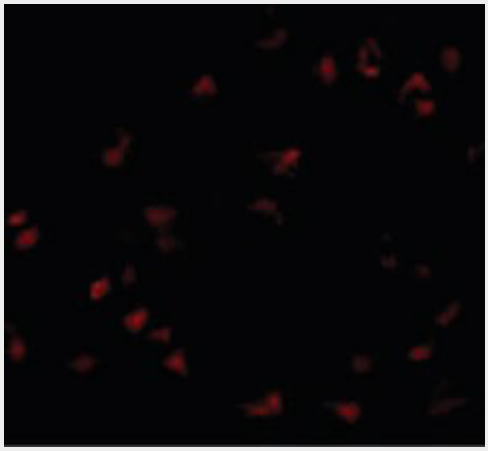
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GNPDA1 Antibody (C-Terminus) - Images

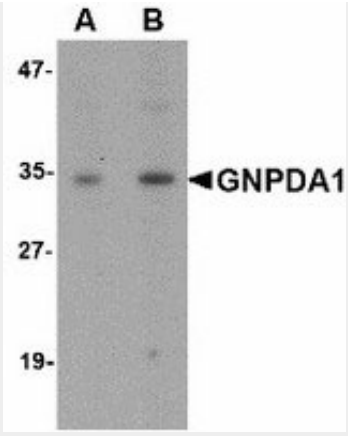


Immunocytochemistry of GNPDA1 in 293 cells with GNPDA1 antibody at 5 ug/ml.

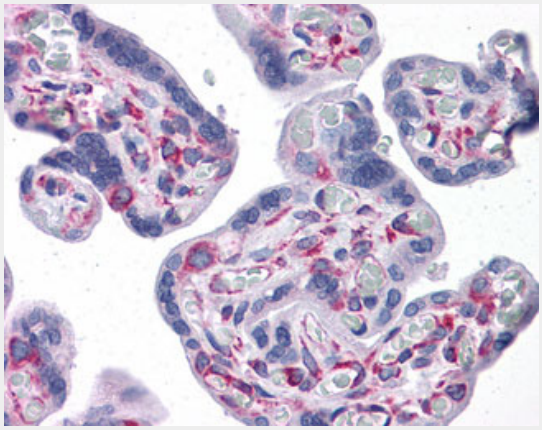


Immunofluorescence of GNPDA1 in 293 cells with GNPDA1 antibody at 20 ug/ml.

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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).