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Rabbit Anti-GNPDA1 antibody

SL13473R

Product Name:	GNPDA1
Chinese Name:	葡萄糖6-磷酸脱氨酶1抗体
Alias:	EC 3.5.99.6; GlcN6P deaminase 1; Glucosamine 6 phosphate deaminase 1; Glucosamine 6 phosphate isomerase 1; Glucosamine-6-phosphate deaminase 1; Glucosamine-6-phosphate isomerase 1; GNPDA 1; GNPDA1; GNPI; GNPI1_HUMAN; HLN; KIAA0060; Oscillin; Putative glucosamine 6 phosphate isomerase.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	33kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human GNPDA1:201-289/289
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	During fertilization in mammals, the sperm activates the egg by causing an increase in the level of free cytoplasmic calcium concentration. This increased calcium concentration induces a characteristic series of oscillations that trigger egg activation

and early embryo development. A hamster protein named oscillin is thought to be involved in this pathway. The enzyme glucosamine-6-phosphate isomerase (GNPI) or deaminase (GNPDA1) and the related protein GNPDA2 are the human homologs of hamster oscillin. GNPDA1 and GNPDA2 catalyze the conversion of GNP to fructose-6-phosphate and ammonia. Both proteins exist as homohexamers and are ubiquitously expressed with highest expression in testis, ovary and heart. Three isoforms of GNPDA2 are expressed due to alternative splicing events.

Function:
Seems to trigger calcium oscillations in mammalian eggs. These oscillations serve as the essential trigger for egg activation and early development of the embryo.

Subunit:
Homohexamer.

Subcellular Location:
Cytoplasm.

Similarity:
Belongs to the glucosamine/galactosamine-6-phosphate isomerase family.

SWISS:
P46926

Gene ID:
10007

Database links:

Entrez Gene: 10007Human

Entrez Gene: 26384Mouse

Entrez Gene: 683570Rat

Omim: 601798Human

SwissProt: P46926Human

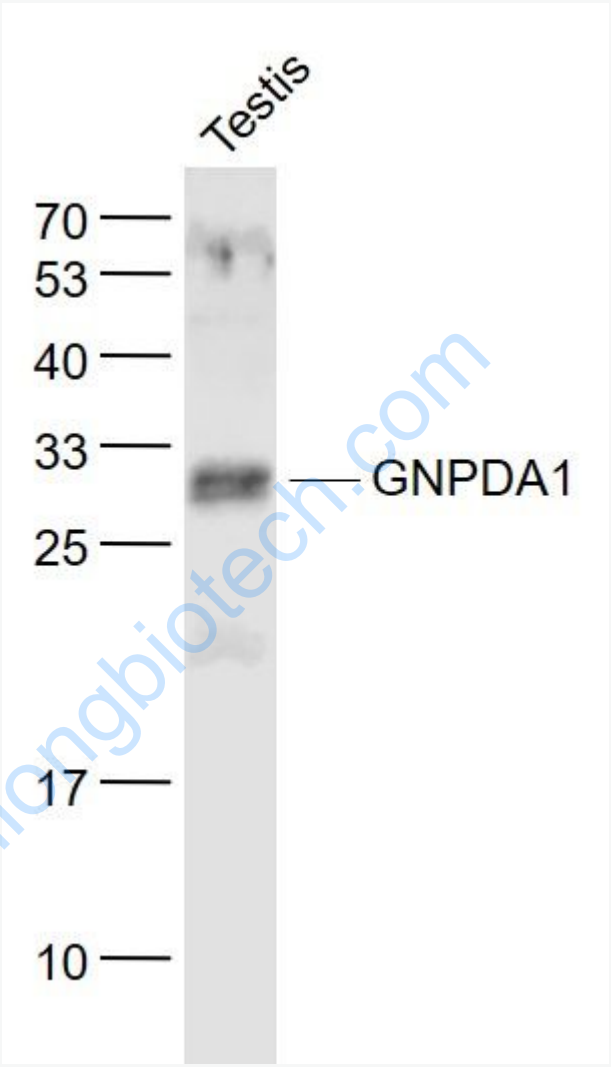
SwissProt: O88958Mouse

Unigene: 633853Human

Unigene: 22374Mouse

Unigene: 216905Rat

Important Note:

	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Sample: Testis (Mouse) Lysate at 40 ug Primary: Anti- GNPDA1 (SL13473R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 33 kD Observed band size: 31 kD