



## Rabbit Anti-GFPT1 antibody

SL13341R

<b>Product Name:</b>	GFPT1
<b>Chinese Name:</b>	谷氨酰胺6-磷酸果糖转移酶抗体
<b>Alias:</b>	D-fructose-6-phosphate amidotransferase 1; GFA; GFAT 1; GFAT; GFAT1; GFAT1m; GFPT; Gfpt1; GFPT1_HUMAN; Glucosamine--fructose-6-phosphate aminotransferase [isomerizing] 1; Glutamine--fructose-6-phosphate transaminase 1; Glutamine:fructose 6 phosphate amidotransferase 1; Hexosephosphate aminotransferase 1.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Dog,Pig,Horse,Rabbit,Sheep,
<b>Applications:</b>	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.
<b>Molecular weight:</b>	79kDa
<b>Cellular localization:</b>	cytoplasmic
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human GFPT1:601-700/699
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	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.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	Glutamine:fructose-6-phosphate amidotransferase (GFAT1) is the first and rate-limiting enzyme for the entry of glucose into the hexosamine biosynthesis pathway (HBP) in mammals. GFAT1, a member of the N-terminal nucleophile class of amidotransferases, converts fructose-6-phosphate into N-acetylglucosamine-6-phosphate. Hyperglycemia-

induced insulin resistance, a condition in which exposure to high concentrations of glucose and insulin results in insulin resistance, may result from increased glucose metabolism through the HBP. Hyperglycemia-induced insulin resistance is a characteristic feature of type 2 diabetes. Consequently, GFAT1 is a potential therapeutic target in the treatment of type 2 diabetes.

**Function:**

Controls the flux of glucose into the hexosamine pathway. Most likely involved in regulating the availability of precursors for N- and O-linked glycosylation of proteins.

**Subunit:**

Homotetramer

**Tissue Specificity:**

Isoform 1 is predominantly expressed in skeletal muscle. Not expressed in brain. Seems to be selectively expressed in striated muscle.

**DISEASE:**

Defects in GFPT1 are the cause of limb-girdle myasthenia with tubular aggregates (LGMTA) [MIM:610542]. A congenital myasthenic syndrome characterized by onset of proximal muscle weakness in the first decade. Individuals with this condition have a recognizable pattern of weakness of shoulder and pelvic girdle muscles, and sparing of ocular or facial muscles. EMG classically shows a decremental response to repeated nerve stimulation, a sign of neuromuscular junction dysfunction. Affected individuals show a favorable response to acetylcholinesterase (AChE) inhibitors.

**Similarity:**

Contains 1 glutamine amidotransferase type-2 domain.  
Contains 2 SIS domains.

**SWISS:**

Q06210

**Gene ID:**

2673

**Database links:**

[Entrez Gene: 2673](#)Human

[Entrez Gene: 14583](#)Mouse

[Entrez Gene: 297417](#)Rat

[Omim: 138292](#)Human

[SwissProt: Q06210](#)Human

[SwissProt: P47856](#)Mouse

[SwissProt: P82808](#)Rat

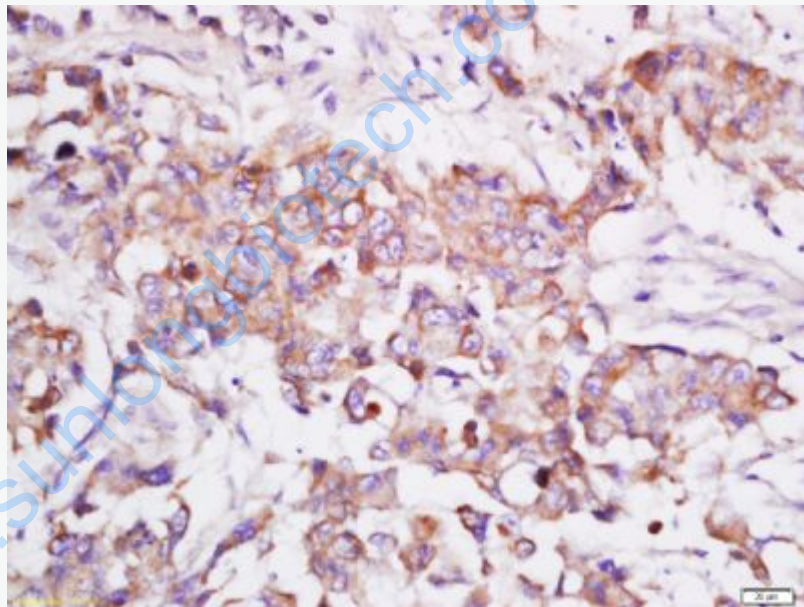
[Unigene: 580300](#)Human

[Unigene: 19893](#)Mouse

[Unigene: 229622](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



**Picture:**

Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-GFPT1 Polyclonal Antibody, Unconjugated(SL13341R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and

	DAB(C-0010) staining
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