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GFPT1 Rabbit mAb

Catalog # AP75488

Product Information

Application	WB, IHC-P, IP
Primary Accession	Q06210
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	78806

Additional Information

Gene ID	2673
Other Names	GFPT1
Dilution	WB~~1:500-1:1000 IHC-P~~N/A IP~~1:10-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

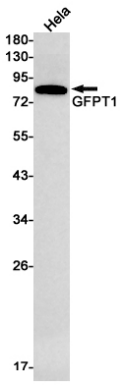
Protein Information

Name	GFPT1 (HGNC:4241)
Synonyms	GFAT, GFPT
Function	Rate-limiting enzyme of the hexosamine biosynthetic pathway (HBP) that catalyzes the formation of glucosamine-6-phosphate from fructose-6-phosphate and glutamine, thereby controlling the flux of glucose into this pathway (PubMed:32019926, PubMed:35229715). Inhibited by UDP-N-acetylglucosamine (UDP-GlcNAc) through a feedback loop (PubMed:32019926, PubMed:35229715). Fine-tunes the metabolic fluctuations of UDP-GlcNAc and its impacts on hyaluronan synthesis during tissue remodeling (PubMed:26887390). Via control of the HPB, regulates the availability of precursors for N- and O-linked protein glycosylation and modulates peripheral clock oscillation (By similarity).
Tissue Location	[Isoform 1]: Predominantly expressed in skeletal muscle. Not expressed in brain. Seems to be selectively expressed in striated muscle.

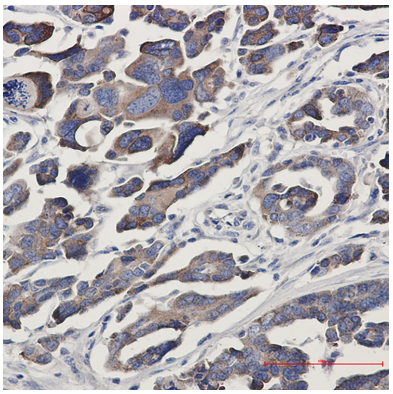
Background

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. Regulates the circadian expression of clock genes ARNTL/BMAL1 and CRY1.

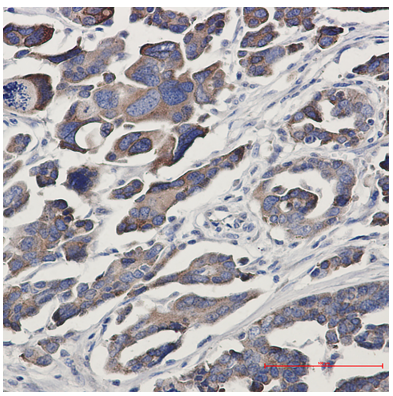
Images



Western blot analysis of GFPT1 in Hela lysates using GFPT1 antibody.



Immunohistochemistry analysis of paraffin-embedded Human Cholangiocarcinoma using GFPT1 antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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