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KD-Validated Anti-GFPT1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1298

Product Information

Application	WB, ICC
Primary Accession	Q06210
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	25GB2800
Calculated MW	78806
Gene Name	GFPT1
Aliases	GFPT1; Glutamine--Fructose-6-Phosphate Transaminase 1; GFAT1; GFAT; GFPT; GFA; Glutamine--Fructose-6-Phosphate Aminotransferase [Isomerizing] 1; Glutamine:Fructose-6-Phosphate Amidotransferase 1; D-Fructose-6-Phosphate Amidotransferase 1; Hexosephosphate Aminotransferase 1; EC 2.6.1.16; GFAT 1; Glucosamine--Fructose-6-Phosphate Aminotransferase [Isomerizing] 1; Glutamine-Fructose-6-Phosphate Transaminase 1; CMSTA1; GFAT1m; GFPT1L; CMS12; MSLG
Immunogen	A synthesized peptide derived from human GFPT1

Additional Information

Gene ID	2673
Other Names	Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 1, 2.6.1.16, D-fructose-6-phosphate amidotransferase 1, Glutamine:fructose-6-phosphate amidotransferase 1, GFAT 1, GFAT1, Hexosephosphate aminotransferase 1, GFPT1, GFAT, GFPT

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.

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