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GFPT1 Antibody

Rabbit mAb
Catalog # AP92844

Product Information

Application	WB, IHC, IP
Primary Accession	Q06210
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	CMS12; CMSTA1; GFA; GFAT; GFAT1; GFAT1m; GFPT; Gfpt1; GFPT1L; Glucosamine--fructose-6-phosphate aminotransferase [isomerizing] 1; Hexosephosphate aminotransferase 1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	78806

Additional Information

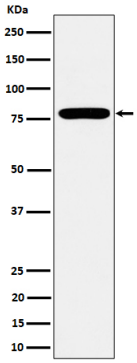
Dilution	WB 1:500~1:2000 IHC 1:50~1:200 IP 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human GFPT1
Description	Controls the flux of glucose into the hexosamine pathway. Most likely involved in regulating the availability of precursors for N- and O-linked glycosylation of proteins.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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.

Images



Western blot analysis of GFPT1 expression in MCF7 cell lysate.

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