

GFPT2 Rabbit mAb

Catalog # AP75489

Product Information

Application	WB, FC, IP
Primary Accession	O94808
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	76931

Additional Information

Gene ID	9945
Other Names	GFPT2
Dilution	WB~~1:500-1:1000 FC~~1:50-1:100 IP~~1:20-1:50
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.

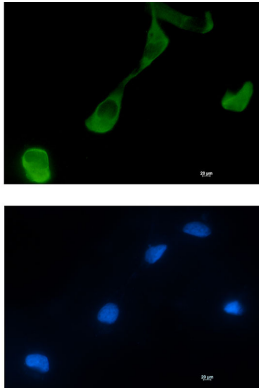
Protein Information

Name	GFPT2 (HGNC:4242)
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: 35229715). Via control of the HPB, likely regulates the availability of precursors for N- and O-linked protein glycosylation (By similarity). Exhibits feedback inhibition by UDP-N-acetylglucosamine (UDP-GlcNAc), although to a lesser extent than GFPT1 (PubMed: 35229715).
Tissue Location	Predominantly expressed throughout the central nervous system, especially in the spinal cord (PubMed:10198162). Also highly expressed in heart and placenta (PubMed:10198162)

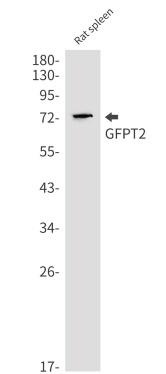
Background

GFPT2 (Glutamine-fructose-6phosphate transaminase 2) is a rate-limiting enzyme in hexosamine biosynthesis involved in the occurrence and progress of many cancers (PMID: 35330716, 14764791). GFPT2 plays an important role in the metabolic activity of cells, especially in their glucose metabolism. GFPT2 expression was highly correlated with EMT-related factors (PMID: 37395335). High GFPT2 expression is associated with poor prognosis in various tumors, including lung adenocarcinoma, colorectal cancer, leiomyosarcoma, and serous ovarian cancer.

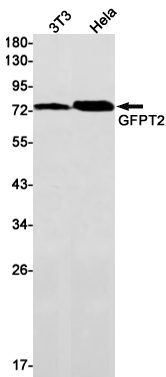
Images



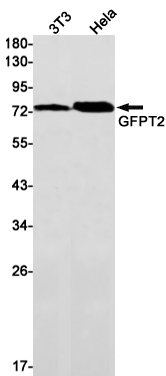
Immunocytochemistry analysis of GFPT2 (green) in HT-1080 using GFPT2 antibody, and DAPI (blue).



Western blot analysis of GFPT2 in rat spleen lysates using GFPT2 antibody.



Western blot analysis of GFPT2 in 3T3, Hela lysates using GFPT2 antibody



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