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GFPT2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9282c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	O94808
Other Accession	Q4KMC4, Q9Z2Z9, Q08DQ2
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23652
Calculated MW	76931
Antigen Region	175-201

Additional Information

Gene ID	9945
Other Names	Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 2, D-fructose-6-phosphate amidotransferase 2, Glutamine:fructose-6-phosphate amidotransferase 2, GFAT 2, GFAT2, Hexosephosphate aminotransferase 2, GFPT2
Target/Specificity	This GFPT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 175-201 amino acids from the Central region of human GFPT2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GFPT2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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)

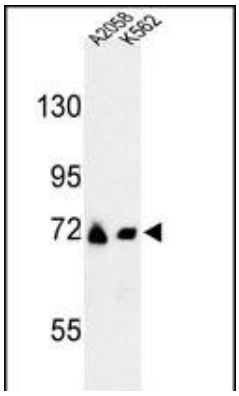
Background

GFPT2 controls the flux of glucose into the hexosamine pathway. This protein most likely involved in regulating the availability of precursors for N-and O-linked glycosylation of proteins.

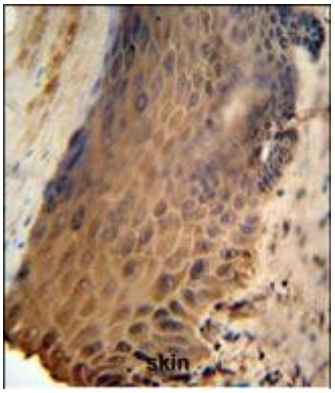
References

Edwards,T.L., et.al., Ann. Hum. Genet. 74 (2), 97-109 (2010)
Prasad,P., et.al., BMC Med. Genet. 11, 52 (2010)
Srinivasan,V., et.al., Clin. Biochem. 40 (13-14), 952-957 (2007)

Images

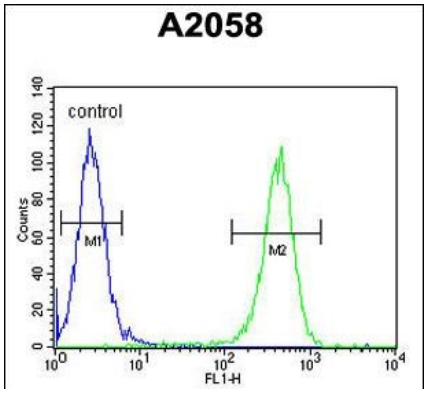


Western blot analysis of GFPT2 Antibody (Center) (Cat. #AP9282c) in A2058, K562 cell line lysates (35ug/lane). GFPT2 (arrow) was detected using the purified Pab.



GFPT2 Antibody (Center) (Cat. #AP9282c) IHC analysis in formalin fixed and paraffin embedded human skin followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the GFPT2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

GFPT2 Antibody (Center) (Cat. #AP9282c) flow cytometric analysis of A2058 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



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