

# Anti-GFAT Antibody

Catalog # AP95837

## Product Information

|                   |                        |
|-------------------|------------------------|
| Application       | WB, FC, IF/IC          |
| Primary Accession | <a href="#">Q06210</a> |
| Reactivity        | Human, Rat, Mk         |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Calculated MW     | 78806                  |

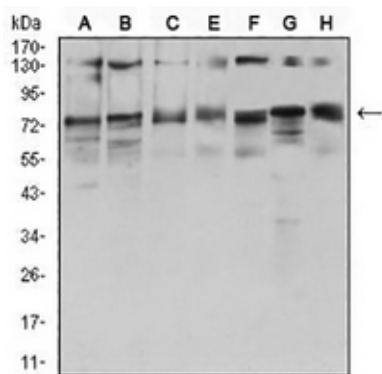
## Additional Information

|                    |                                                                                                                                                                                                                               |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID            | 2673                                                                                                                                                                                                                          |
| Other Names        | GFAT; GFPT; Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 1; D-fructose-6-phosphate amidotransferase 1; Glutamine:fructose-6-phosphate amidotransferase 1; GFAT 1; GFAT1; Hexosephosphate aminotransferase 1 |
| Target/Specificity | Recombinant fusion protein of human GFAT expressed in E. Coli                                                                                                                                                                 |
| Dilution           | WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200) IF/IC~~N/A                                                                                                                                                                     |
| Format             | Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.                                                                                                                                                      |
| Storage            | Store at -20 °C.Stable for 12 months from date of receipt                                                                                                                                                                     |

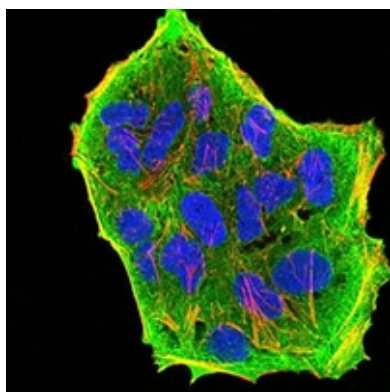
## Protein Information

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name            | GFPT1 ( <a href="#">HGNC:4241</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 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: <a href="#">32019926</a> , PubMed: <a href="#">35229715</a> ). Inhibited by UDP-N-acetylglucosamine (UDP-GlcNAc) through a feedback loop (PubMed: <a href="#">32019926</a> , PubMed: <a href="#">35229715</a> ). Fine-tunes the metabolic fluctuations of UDP-GlcNAc and its impacts on hyaluronan synthesis during tissue remodeling (PubMed: <a href="#">26887390</a> ). 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

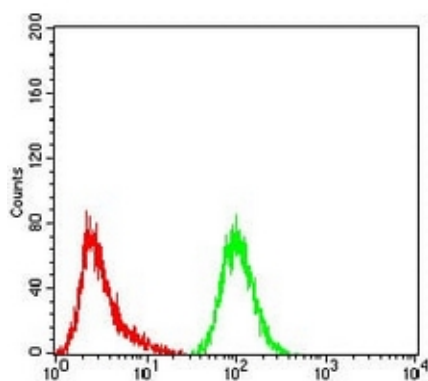
## Images



Western blot analysis of GFAT expression in HepG2 (A), HEK293 (B), BEL7402 (C), SMMC7721 (D), SKMES1 (E), C6 (F), COS7 (G) whole cell lysates. (Predicted band size: 79 kD; Observed band size: 75 kD)



Immunofluorescent analysis of GFAT staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-GFAT Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.