

**DATASHEET**
**GFAT Mouse Monoclonal Antibody(C2714)**
**CAT. NO. AMA02326**
**KEY FEATURES**

Target	GFAT	Source / Host	Mouse
Reactivity	Human, Rat, Monkey	Clonality	Monoclonal
Applications	WB, IF/ICC, FC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

**BACKGROUND**

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 that catalyzes the formation of glucosamine-6-phosphate from fructose-6-phosphate and glutamine, thereby controlling the flux of glucose into this pathway . Inhibited by UDP-N-acetylglucosamine (UDP-GlcNAc) through a feedback loop . Fine-tunes the metabolic fluctuations of UDP-GlcNAc and its impacts on hyaluronan synthesis during tissue remodeling . Via control of the HPB, regulates the availability of precursors for N- and O-linked protein glycosylation and modulates peripheral clock oscillation .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:100 - 1:500
FC	1:100 - 1:200

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Mouse monoclonal to GFAT
Specificity	Recognizes endogenous levels of GFAT protein
Antibody Type	Primary antibody
Immunogen	Recombinant fusion protein of human GFAT expressed in E. Coli
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 79 kD; Observed: 75 kD
Form/Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative 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
Gene Symbol	GFPT1
Entrez Gene	2673(Human); 297417(Rat)
SwissProt	Q06210(Human); P82808(Rat)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

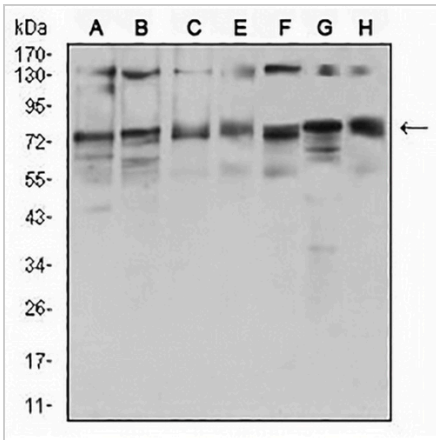
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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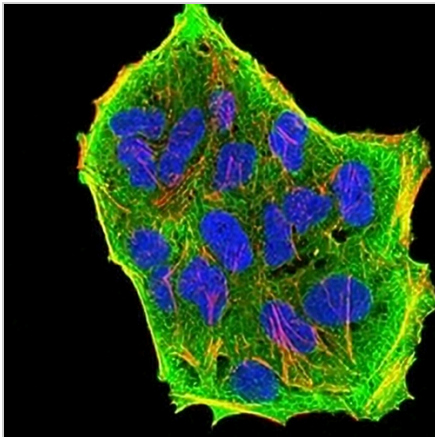
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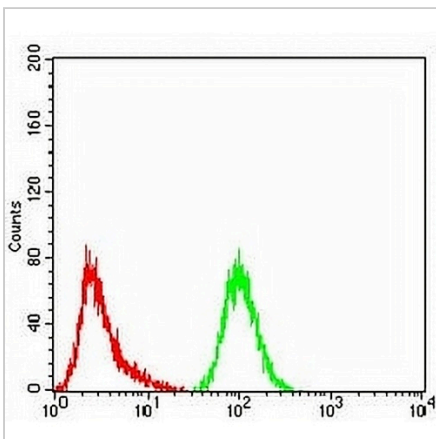
**DATA**



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 AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 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).

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.