

Code No. 28123

**Anti-Human
GFAT1 (S243 Phosphorylated) Rabbit IgG Affinity Purify**

Volume : 50 µg

Introduction : GFAT1 (Glutamine : fructose-6-phosphate amidotransferase 1) is one of nutrient-sensitive phosphoprotein which was identified as a protein phosphorylated in glucose-deprived cells.

Three nutrient signaling pathways have been widely known; (i) the mammalian target of rapamycin (mTOR) signaling pathway, (ii) AMP-activated protein kinase (AMPK) signaling pathway, and (iii) hexosamine signaling pathway.

GFAT1 was isolated, which is the first and rate-limiting enzyme for the entry of glucose into the hexosamine signaling pathway to generate UDP-GlcNAc in mammals.

Recent evidences have indicated that the signals derived from nutrients like amino acid and glucose play important roles in the control of the cellular activities as well as in synthesis of proteins and generation of ATP.

This antibody recognizes the phosphorylated part (Serine243) of human GFAT1.

Antigen : Synthetic peptide of the phosphorylated part of human GFAT1 (CNLSRVD(pS)TTCL)

Purification : Purified with antigen peptide

Form : Lyophilized product from 1 % BSA in PBS containing 0.05 % NaN₃

How to use : 0.5 mL deionized water will be added to the product (the conc. comes up 100 µg /mL)

Stability : Lyophilized product, 5 years at 2 – 8 °C
: Solution, 2 years at –20 °C

Application : This antibody can be used for western blotting in concentration of 1 - 5 µg /mL.
: This antibody can be used for immuno-precipitation in concentration of 1 - 5 µg /test.

Reference : 1. Eguchi S, Oshiro N, Miyamoto T, Yoshino K, Okamoto S, Ono T, Kikkawa U, Yonezawa K. AMP-activated protein kinase phosphorylates glutamine : fructose-6-phosphate amidotransferase 1 at Ser243 to modulate its enzymatic activity. *Genes Cells*. 2009 Feb;14(2):179-89.