

GGH Antibody / Gamma glutamyl hydrolase [clone 31G17] (FY12664)

Catalog No.	Formulation	Size
FY12664	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium	100 ul
	azide and 50% glycerol, 0.4-0.5mg/ml BSA	

Recombinant RABBIT MONOCLONAL **Bulk quote request Availability** 2-3 weeks **Species Reactivity** Human **Format** Liquid Recombinant Rabbit Monoclonal Clonality Isotype Rabbit IgG **Clone Name** 31G17 **Purity** Affinity-chromatography **Buffer** Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA. UniProt Q92820 Western Blot: 1:500-1:2000 **Applications**

Description

Limitations

GGH antibody detects gamma glutamyl hydrolase, an enzyme encoded by the GGH gene. GGH hydrolyzes polyglutamylated folates and antifolate drugs, converting them into monoglutamyl forms that can be transported across membranes. This activity regulates intracellular folate homeostasis and influences the efficacy of antifolate chemotherapeutics such as methotrexate. By controlling folate metabolism, GGH contributes to nucleotide synthesis, DNA replication, and cell proliferation.

This GGH antibody is available for research use only.

GGH antibody is widely applied in oncology, pharmacology, and metabolism research. Elevated GGH expression reduces the retention and potency of antifolate drugs, contributing to chemoresistance in leukemia and solid tumors. Conversely, altered GGH activity affects folate availability and one carbon metabolism, impacting DNA synthesis and repair. By detecting GGH, researchers can study how folate metabolism intersects with cancer biology, drug resistance, and metabolic disease.

The antibody is validated for western blotting, immunohistochemistry, and immunofluorescence. Western blot assays

detect GGH protein bands in liver and tumor extracts. Immunohistochemistry maps expression in proliferative tissues and tumors, while immunofluorescence highlights cytoplasmic localization in cells actively synthesizing DNA. These approaches provide insight into how GGH distribution correlates with metabolic activity and drug response.

GGH also plays roles in normal physiology, regulating folate supply for rapidly dividing cells in bone marrow, intestinal epithelium, and developing tissues. Dysregulation of GGH has been associated with megaloblastic anemia, cancer progression, and sensitivity to antifolate therapy. By applying GGH antibody, scientists can explore the balance between folate metabolism and proliferation in both health and disease.

GGH antibody from NSJ Bioreagents provides reliable specificity for studying gamma glutamyl hydrolase function. Its strong performance across multiple assays ensures accurate detection of this enzyme in basic research and translational studies of chemotherapy resistance.

Application Notes

Optimal dilution of the GGH antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Gamma glutamyl hydrolase was used as the immunogen for the GGH antibody.

Storage

Store the GGH antibody at -20oC.