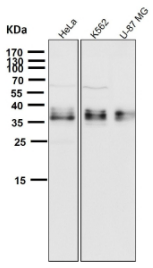
# GGH Antibody / Gamma glutamyl hydrolase [clone 31G17] (FY12664)

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

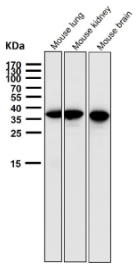
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

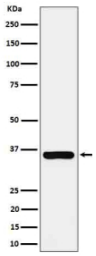
| | |
|---|---|
| **Availability** | 2-3 weeks |
| **Species Reactivity** | Human |
| **Format** | Liquid |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | 31G17 |
| **Purity** | Affinity-chromatography |
| **Buffer** | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA. |
| **UniProt** | Q92820 |
| **Applications** | Western Blot : 1:500-1:2000 |
| **Limitations** | This GGH antibody is available for research use only. |



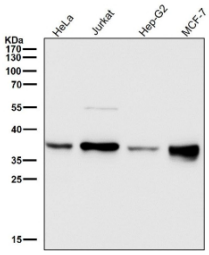

All lanes use the GGH antibody at 1:1000 dilution for 1 hour at room temperature. Western blot analysis of GGH using anti-GGH antibody. A principal band is observed at ~36 kDa with additional closely migrating bands, consistent with reported glycosylated and proteolytically processed forms of GGH.




All lanes use the GGH antibody at 1:1000 dilution for 1 hour at room temperature. Expected molecular weight ~36 kDa but additional bands may be observed due to glycosylation.




Western blot analysis of Gamma glutamyl hydrolase expression in human MCF7 cell lysate using GGH antibody. Expected molecular weight ~36 kDa but additional bands may be observed due to glycosylation.




All lanes use the GGH antibody at 1:1000 dilution for 1 hour at room temperature. Expected molecular weight ~36 kDa but additional bands may be observed due to glycosylation.

## Description

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.

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.

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.