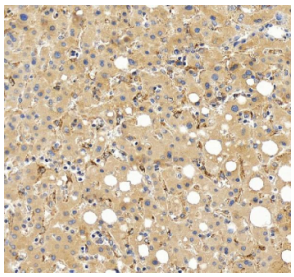
FGL1 Antibody / Fibrinogen-like protein 1 (FY12657)

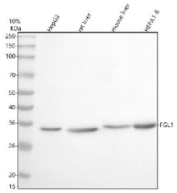
Catalog No.	Formulation	Size
FY12657	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q08830
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml
Limitations	This FGL1 antibody is available for research use only.



Immunohistochemical staining of FGL1 using anti-FGL1 antibody. FGL1 was detected in a paraffin-embedded section of human liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-FGL1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Western blot analysis of FGL1 using anti-FGL1 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HepG2 whole cell lysates, Lane 2: rat liver tissue lysates, Lane 3: mouse liver tissue lysates, Lane 4: mouse HEPA1-6 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-FGL1 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. The expected molecular weight of FGL1 is ~36 kDa.

Description

FGL1 antibody detects Fibrinogen-like protein 1, a hepatocyte-derived secreted glycoprotein that plays dual roles in liver regeneration and immune regulation. FGL1 is structurally similar to fibrinogen beta and gamma chains but functions as an immune checkpoint ligand for LAG-3, contributing to T-cell inhibition and immune tolerance. The FGL1 antibody is widely used in immunology, oncology, and hepatic biology research to study immune evasion, regeneration, and tumor immunotherapy.

FGL1 is encoded by the FGL1 gene located on human chromosome 8p22. The protein is approximately 312 amino acids long and contains a fibrinogen-like domain that mediates binding to the lymphocyte-activation gene 3 (LAG-3) receptor. FGL1 is predominantly expressed in the liver but can also be produced by tumor cells and tissues under regenerative or inflammatory conditions. It is secreted into plasma, acting in both paracrine and systemic signaling.

The FGL1 antibody detects a 35 kilodalton protein by western blot and shows cytoplasmic and secretory vesicle localization under immunostaining. In normal physiology, FGL1 supports hepatocyte proliferation and tissue regeneration following liver injury by activating ERK and STAT3 pathways. In the immune system, FGL1 serves as a non-MHC ligand for LAG-3, suppressing effector T-cell activation and cytokine release, thereby promoting immune tolerance.

In cancer, FGL1 is frequently upregulated and mediates resistance to immunotherapies targeting the PD-1/PD-L1 axis. High expression correlates with poor prognosis in hepatocellular carcinoma, lung cancer, and melanoma. Neutralization of FGL1 enhances antitumor immunity, making it an emerging therapeutic target for combination checkpoint blockade. Beyond oncology, altered FGL1 levels are associated with metabolic disorders and liver fibrosis.

As a multifunctional factor bridging liver regeneration and immune suppression, FGL1 provides critical insights into tissue repair and immune escape. NSJ Bioreagents provides a validated FGL1 antibody optimized for western blot, immunohistochemistry, and ELISA, supporting research into immune regulation, liver biology, and cancer immunotherapy.

Application Notes

Optimal dilution of the FGL1 antibody should be determined by the researcher.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human FGL1 was used as the immunogen for the FGL1 antibody.

Storage

After reconstitution, the FGL1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.