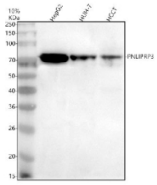
PNLIPRP3 Antibody / Pancreatic lipase-related protein 3 (FY12154)

Catalog No.	Formulation	Size
FY12154	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
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	Q17RR3
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This PNLIPRP3 antibody is available for research use only.



Western blot analysis of PNLIPRP3 using anti-PNLIPRP3 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: human HUH-7 whole cell lysates, Lane 3: human HCCT 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-PNLIPRP3 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 band size for PNLIPRP3 is at 52 kDa but may be observed at higher molecular weights due to glycosylation.

Description

PNLIPRP3 antibody detects Pancreatic lipase-related protein 3, encoded by the PNLIPRP3 gene on chromosome 10q25.3. PNLIPRP3 antibody is used to study this lipase family member, which shares structural similarity with pancreatic

triglyceride lipase but has distinct tissue expression and activity. While classical pancreatic lipase (PNLIP) is secreted into the digestive tract to hydrolyze dietary fats, PNLIPRP3 appears to play specialized roles in lipid metabolism and homeostasis. Expression studies indicate enrichment in pancreatic tissue and potential expression in other gastrointestinal organs.

Structurally, PNLIPRP3 shares the canonical lipase alpha/beta hydrolase fold with a catalytic triad composed of serine, histidine, and aspartate. Like other lipase family proteins, it contains a lid domain that controls substrate access to the catalytic site. However, PNLIPRP3 exhibits differences in substrate specificity compared to PNLIP, possibly reflecting adaptation to non-dietary lipid substrates. It may act as a regulatory or modulating enzyme within pancreatic exocrine secretions.

Functionally, PNLIPRP3 has not been fully characterized, but it is believed to contribute to lipid digestion or modification. Some studies suggest it may regulate availability of lipids important for signaling pathways or metabolic balance. Given its expression in the pancreas, PNLIPRP3 may serve as a backup or auxiliary enzyme supporting triglyceride hydrolysis. Researchers apply PNLIPRP3 antibody to investigate its expression patterns, biochemical properties, and potential regulatory roles in lipid metabolism.

Clinically, PNLIPRP3's contribution to disease remains largely unexplored. Altered expression of lipase family members is associated with pancreatic disorders, metabolic syndrome, and digestive diseases, and PNLIPRP3 may be implicated in similar contexts. Genome analyses have identified variation in the PNLIPRP3 locus, but functional consequences remain unclear. Understanding PNLIPRP3 could reveal new insights into pancreatic enzyme biology and lipid regulation. NSJ Bioreagents offers PNLIPRP3 antibody to support ongoing research into lipase biology, pancreas physiology, and metabolism.

Experimentally, PNLIPRP3 antibody is used in western blotting to detect its ~52-70 kDa protein, in immunohistochemistry to study pancreatic tissue expression, and in ELISA assays to measure protein levels. Immunoprecipitation with PNLIPRP3 antibody helps characterize binding partners and enzyme complexes. These approaches enable researchers to dissect the role of this poorly understood lipase-related protein.

Application Notes

Optimal dilution of the PNLIPRP3 antibody should be determined by the researcher.

Immunogen

E.coli-derived human PNLIPRP3 recombinant protein (Position: H218-C467) was used as the immunogen for the PNLIPRP3 antibody.

Storage

After reconstitution, the PNLIPRP3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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