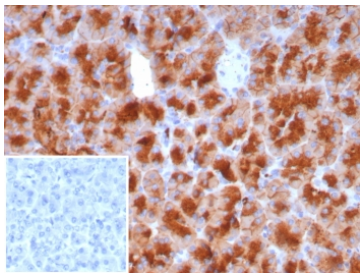
ZAP75 Antibody / Glycoprotein 2 / GP2 [clone GP2/8229R] (V4401)

Catalog No.	Formulation	Size
V4401-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4401-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4401SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	GP2/8229R
Purity	Protein A/G affinity
UniProt	P55259
Localization	Cell surface, Secreted, Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This ZAP75 antibody is available for research use only.



IHC analysis of ZAP75 Antibody / Glycoprotein 2 in human pancreas. ZAP75 antibody (clone GP2/8229R) was used for immunohistochemistry on FFPE human pancreas tissue. Strong HRP-DAB brown cytoplasmic and apical staining is observed in pancreatic acinar cells, consistent with the known localization of Glycoprotein 2 (GP2) to pancreatic zymogen granule membranes in exocrine pancreas. The staining highlights acinar epithelial cells surrounding pancreatic ducts, while surrounding stromal regions show minimal signal. Inset: PBS used in place of primary antibody as a secondary antibody negative control. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

GP2 antibody, also known as Glycoprotein 2 antibody and pancreatic secretory granule membrane glycoprotein antibody,

recognizes Glycoprotein 2 (GP2), a heavily glycosylated GPI-anchored protein that is strongly expressed in pancreatic acinar cells and associated with secretory granule membranes. ZAP75 Antibody / Glycoprotein 2 (clone GP2/8229R) targets this well characterized exocrine pancreatic protein, which is widely referred to in the literature as GP2 glycoprotein, pancreatic secretory granule membrane glycoprotein, or zymogen granule membrane glycoprotein GP2. Because of its highly restricted expression pattern in pancreatic acinar epithelium, GP2 antibody detection is commonly used as a marker of pancreatic exocrine differentiation and secretory granule biology.

Glycoprotein 2 was originally identified as the major glycoprotein of pancreatic zymogen granule membranes, which explains why the protein is frequently described as pancreatic zymogen granule membrane glycoprotein or pancreatic secretory granule membrane protein GP2 in the literature. Within acinar cells, GP2 localizes to the membranes of enzyme-containing zymogen granules that store digestive proteases and other pancreatic enzymes prior to secretion. During regulated exocytosis, portions of the granule membrane containing GP2 can be released into the pancreatic duct lumen together with digestive enzymes. Because of this biology, Glycoprotein 2 antibody staining typically highlights strong apical and granule-associated distribution in pancreatic acinar cells, reflecting the protein's role in the secretory machinery of the exocrine pancreas.

Structurally, GP2 belongs to the uromodulin-like protein family and shares structural features with uromodulin, also known as Tamm-Horsfall protein, a secreted glycoprotein involved in innate immune defense in the kidney. Glycoprotein 2 contains multiple N-linked glycosylation sites and a glycosylphosphatidylinositol anchor that facilitates membrane attachment before secretion or cleavage. The GP2 gene is located on chromosome 16p12 and encodes a protein associated with polarized epithelial secretion and vesicle trafficking. Because of these properties, GP2 glycoprotein antibody reagents are frequently used to study secretory granule formation, vesicle transport, and apical membrane dynamics in pancreatic epithelial cells.

Beyond the pancreas, GP2 has also been detected on specialized intestinal epithelial cells known as microfold cells, or M cells, which are present within Peyer's patches and other gut-associated lymphoid tissues. In these cells, GP2 functions as a microbial recognition molecule capable of binding bacterial adhesins expressed by certain enteric pathogens. This interaction facilitates microbial uptake and antigen sampling across the intestinal epithelium, contributing to mucosal immune surveillance. Because of this function, GP2 antibody reagents are also useful in studies investigating host-microbe interactions and epithelial immune communication within the gastrointestinal tract.

Several strong literature synonyms are commonly used for this protein, including GP2 glycoprotein, pancreatic secretory granule membrane glycoprotein, pancreatic zymogen granule membrane protein GP2, and zymogen granule membrane glycoprotein GP2. Integrating these established names ensures clear recognition of this pancreatic acinar marker across pancreatic biology and mucosal immunology research. Clone GP2/8229R is a rabbit monoclonal antibody designed to recognize GP2 protein expression in relevant research systems. This Glycoprotein 2 antibody is available from NSJ Bioreagents for investigators studying pancreatic secretion, epithelial polarity, and mucosal immune interactions.

Application Notes

Optimal dilution of the recombinant ZAP75 antibody should be determined by the researcher.

Immunogen

A recombinant fragment of human protein (within amino acids 35-179) was used as the immunogen for the ZAP75 antibody.

Storage

Aliquot the ZAP75 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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