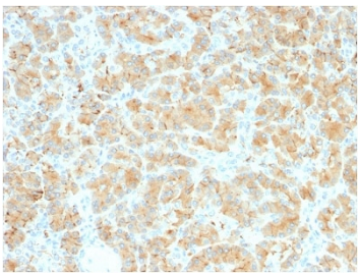
Recombinant Glycoprotein 2 Antibody GP2/2569R / GP2 / ZAP75 [clone GP2/2569R] (V7279)

Catalog No.	Formulation	Size
V7279-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7279-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7279SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7279IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

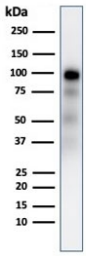
Recombinant RABBIT MONOCLONAL

Bulk quote request

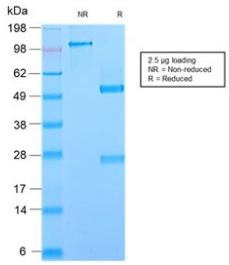
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	GP2/2569R
Purity	Protein A affinity chromatography
UniProt	P55259
Localization	Cytoplasmic, membranous, secreted
Applications	ELISA : 2-4ug/ml (order BSA/azide-free format) Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT (1)
Limitations	This recombinant Glycoprotein 2 antibody is available for research use only.



Immunohistochemistry of Glycoprotein 2 antibody in human pancreas. Formalin-fixed, paraffin-embedded human pancreas tissue was stained using GP2 Antibody for IHC recognizing Glycoprotein 2 (clone GP2/2569R). Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer. HRP-DAB brown staining is observed in pancreatic acinar cells, showing cytoplasmic and apical localization consistent with the known distribution of pancreatic secretory granule membrane major glycoprotein GP2 within zymogen granules. Acinar cell clusters show strong staining while surrounding stromal and ductal structures display minimal signal.



Western blot testing of human pancreas lysate with recombinant Glycoprotein 2 antibody (clone GP2/2569R).



SDS-PAGE analysis of purified, BSA-free recombinant Glycoprotein 2 antibody (clone GP2/2569R) as confirmation of integrity and purity.

Description

Glycoprotein 2 (GP2), encoded by the GP2 gene, is a membrane-associated glycoprotein primarily localized to the membranes of pancreatic zymogen granules in acinar cells. Recombinant Glycoprotein 2 antibody GP2/2569R recognizes this secretory granule protein, which is commonly referred to as pancreatic secretory granule membrane major glycoprotein GP2 and zymogen granule membrane glycoprotein 2. GP2 is one of the most abundant proteins associated with pancreatic zymogen granule membranes and plays an important role in the secretory machinery of pancreatic acinar cells.

GP2 is synthesized in pancreatic acinar cells and becomes incorporated into the membranes of zymogen granules, which store digestive enzymes prior to secretion into the pancreatic ducts. During the regulated secretion process, these granules fuse with the apical plasma membrane and release their contents into the pancreatic ductal system. Glycoprotein 2 can subsequently be released into the pancreatic duct lumen where it may interact with luminal components. Due to this biology, GP2 expression is strongly associated with pancreatic acinar differentiation and secretory granule formation.

Recombinant Glycoprotein 2 antibody GP2/2569R is designed to detect GP2 protein expression in research applications focused on pancreatic tissue biology and epithelial differentiation. In tissue sections, Glycoprotein 2 expression is typically observed in pancreatic acinar cells, where the protein localizes to the apical cytoplasmic region corresponding to zymogen granules. This distinctive cellular distribution reflects the role of GP2 in digestive enzyme packaging and secretion. Detection of GP2 in tissue specimens therefore provides insight into the presence and integrity of pancreatic acinar cells within normal or diseased tissues.

Beyond its role in pancreatic secretion, GP2 has also been reported in certain epithelial and mucosal environments where it may participate in interactions between epithelial surfaces and microbial components. Some studies have suggested that GP2 can function as a receptor for bacterial structures and may contribute to mucosal immune surveillance in

specialized epithelial cells. These findings indicate that GP2 may have broader biological roles beyond the pancreas, particularly in host defense mechanisms within epithelial tissues.

Recombinant Glycoprotein 2 antibody supports the detection of GP2 protein expression in research settings examining pancreatic physiology, epithelial cell differentiation, and secretory granule biology. Because GP2 expression is highly characteristic of pancreatic acinar cells, antibodies targeting this protein are frequently used to investigate pancreatic tissue organization and acinar cell identity. Analysis of GP2 expression patterns can therefore contribute to studies of pancreatic development, tissue differentiation, and disease-related alterations in secretory cell function.

Application Notes

Optimal dilution of the recombinant Glycoprotein 2 antibody GP2/2569R should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A partial human recombinant protein corresponding to amino acids 35-179 was used as the immunogen for the recombinant Glycoprotein 2 antibody.

Storage

Store the recombinant Glycoprotein 2 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).