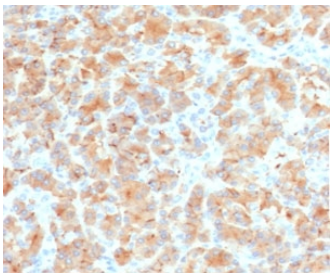
Glycoprotein 2 Antibody Recombinant Rabbit MAb PSGMG2-2R / GP2 / ZAP75 [clone PSGMG2-2R] (V7440)

Catalog No.	Formulation	Size
V7440-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7440-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7440SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7440IHC-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	PSGMG2-2R
Purity	Protein A affinity chromatography
UniProt	P55259
Localization	Cytoplasmic, membranous, secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Prediluted IHC only format: incubate for 30 min at RT (1)
Limitations	This Glycoprotein 2 antibody is available for research use only.



Immunohistochemistry of Glycoprotein 2 Antibody Recombinant Rabbit MAb in human pancreas. Formalin-fixed, paraffin-embedded human pancreas tissue was stained using Glycoprotein 2 Antibody Recombinant Rabbit MAb PSGMG2-2R. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA. HRP-DAB brown staining highlights pancreatic acinar cells with strong cytoplasmic and apical localization, consistent with the known distribution of Glycoprotein 2 within zymogen granules of exocrine pancreatic cells. Surrounding stromal tissue and pancreatic ductal structures show minimal staining.

Description

GP2 antibody, also known as Glycoprotein 2 antibody and Pancreatic secretory granule membrane major glycoprotein antibody, recognizes Glycoprotein 2, a heavily glycosylated GPI-anchored membrane protein encoded by the GP2 gene. Glycoprotein 2 Antibody Recombinant Rabbit MAb PSGMG2-2R targets this well characterized pancreatic protein that is most commonly referred to in the literature as GP2, pancreatic secretory granule membrane glycoprotein, or zymogen granule membrane glycoprotein GP2. GP2 is highly expressed in pancreatic acinar cells where it localizes primarily to the membranes of secretory zymogen granules and the apical surface of the exocrine epithelium, making GP2 antibody reagents widely used markers of pancreatic acinar differentiation and secretory granule biology.

Glycoprotein 2 was originally identified as the major glycoprotein of pancreatic zymogen granule membranes, which explains why it is frequently described as pancreatic secretory granule membrane glycoprotein GP2 or pancreatic zymogen granule glycoprotein. During stimulated secretion, portions of the granule membrane containing GP2 are 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 signal in pancreatic acinar cells. These features have made GP2 antibody detection valuable in studies examining pancreatic secretion, vesicle trafficking, and epithelial polarity in the exocrine pancreas.

Structurally, GP2 belongs to the uromodulin-like protein family and shares homology with uromodulin (Tamm-Horsfall protein), another secreted glycoprotein involved in host defense. Glycoprotein 2 contains multiple N-linked glycosylation sites and a glycosylphosphatidylinositol anchor that enables membrane attachment prior to secretion or cleavage. The GP2 gene is located on chromosome 16p12 and produces a glycoprotein that participates in regulated secretory pathways characteristic of highly specialized epithelial cells. Because GP2 glycoprotein antibody reagents detect a protein associated with secretory vesicles, they are frequently used to investigate secretory granule formation, trafficking, and exocytosis in pancreatic tissue.

In addition to its pancreatic role, GP2 has been identified on intestinal microfold cells, also known as M cells, within Peyer's patches and other gut-associated lymphoid tissues. In these epithelial immune sampling cells, GP2 functions as a pattern recognition molecule capable of binding certain bacterial adhesins. This interaction helps facilitate the uptake of luminal microorganisms for immune surveillance. For this reason, GP2 antibody reagents are also applied in studies of mucosal immunity, intestinal barrier biology, and host-microbe interactions.

Because Glycoprotein 2 is frequently discussed using several names across the literature, including GP2 glycoprotein, pancreatic secretory granule membrane protein GP2, and zymogen granule membrane glycoprotein GP2, integrating these strong synonyms into research descriptions helps ensure consistent identification of this pancreatic acinar marker. A recombinant rabbit monoclonal GP2 antibody such as clone PSGMG2-2R provides a defined reagent format for detecting GP2 expression in pancreatic epithelial biology and related research fields. This Glycoprotein 2 antibody is available from NSJ Bioreagents for investigators studying pancreatic secretion, epithelial differentiation, and mucosal immune interactions.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Glycoprotein 2 antibody recombinant rabbit mAb PSGMG2-2R may be required due to differences in protocols and secondary/substrate sensitivity.

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

Amino acids 35-179 were used as the immunogen for the recombinant Glycoprotein 2 antibody.

Storage

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

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