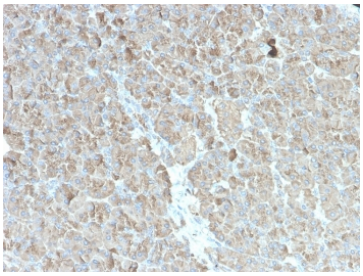
CELA3B Antibody Recombinant Mouse MAb / Elastase 3B [clone rCELA3B/1811] (V7811)

Catalog No.	Formulation	Size
V7811-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7811-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7811SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

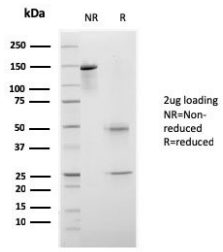
Recombinant MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rCELA3B/1811
Purity	Protein G affinity chromatography
UniProt	P08861
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This CELA3B antibody is available for research use only.



Immunohistochemistry of CELA3B Antibody Recombinant Mouse MAb rCELA3B/1811 in human pancreas. Formalin-fixed, paraffin-embedded human pancreatic tissue shows strong cytoplasmic staining in acinar cells, consistent with the known secretory localization of Chymotrypsin-like elastase family member 3B. Required HIER: boil tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.



SDS-PAGE analysis of purified, BSA-free recombinant mouse monoclonal CELA3B antibody (clone rCELA3B/1811) as confirmation of integrity and purity.

Description

CELA3B Antibody Recombinant Mouse MAb rCELA3B/1811 is directed against Chymotrypsin-like elastase family member 3B, a secreted digestive serine protease commonly known as pancreatic elastase 3B or elastase 3B. The human CELA3B gene resides on chromosome 1p36.12 and encodes a protein that is highly enriched in pancreatic acinar cells, where it functions as part of the exocrine enzyme repertoire responsible for protein digestion. As a member of the elastase subfamily within the chymotrypsin-like serine protease family, CELA3B contributes to the regulated proteolytic environment of the small intestine.

The CELA3B protein is synthesized as a preproenzyme containing a signal peptide that directs entry into the endoplasmic reticulum, followed by a propeptide segment that maintains the enzyme in an inactive zymogen state. After processing in the Golgi apparatus, it is packaged into cytoplasmic zymogen granules within pancreatic acinar cells. Upon physiologic stimulation, these granules undergo exocytosis, releasing elastase 3B into the duodenal lumen where activation enables hydrolysis of dietary peptide substrates. Structurally, the mature enzyme adopts the conserved serine protease fold with a catalytic triad typical of trypsin-like endopeptidases.

CELA3B shares significant sequence and functional similarity with CELA3A, and both enzymes are sometimes referenced in the context of fecal elastase 1 measurement due to their stability in pancreatic secretions. In tissue-based research, CELA3B expression is largely restricted to pancreatic acinar cells, where it demonstrates strong cytoplasmic localization consistent with secretory granules. This restricted expression pattern supports its use as a lineage-associated marker of acinar differentiation and in studies evaluating pancreatic acinar cell carcinoma and other exocrine pancreatic neoplasms.

Genetic investigations have linked certain CELA3B variants to hereditary pancreatitis phenotypes, emphasizing the importance of tightly controlled protease activation in pancreatic homeostasis. Dysregulated digestive enzyme activity is a well-established contributor to pancreatitis pathogenesis. The recombinant mouse monoclonal clone rCELA3B/1811 is developed to support research applications focused on pancreatic acinar biology, digestive enzyme regulation, and elastase family protein expression.

Application Notes

Optimal dilution of the CELA3B antibody should be determined by the researcher.

Immunogen

Amino acids 82-238 from the human protein were used as the immunogen for the CELA3B antibody recombinant mouse mAb rCELA3B/1811.

Storage

Store the CELA3B antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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