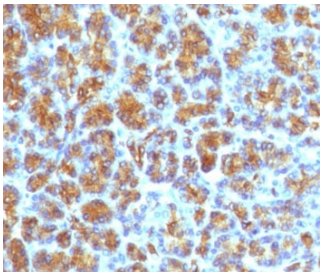
CELA3B Antibody Recombinant Rabbit MAb / Elastase 3B [clone ELTS3B-4R] (V7454)

Catalog No.	Formulation	Size
V7454-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7454-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7454SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7454IHC-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	ELTS3B-4R
Purity	Protein A affinity chromatography
UniProt	P08861
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Prediluted IHC Only Format : incubate for 30 min at RT (1)
Limitations	This CELA3B antibody is available for research use only.



Immunohistochemistry of CELA3B Antibody Recombinant Rabbit MAb ELTS3B-4R in human pancreas. Formalin-fixed, paraffin-embedded human pancreatic tissue demonstrates strong granular cytoplasmic staining in acinar cells, consistent with the secretory localization of Chymotrypsin-like elastase family member 3B, while surrounding stromal elements are largely negative. 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.

Description

CELA3B Antibody Recombinant Rabbit MAb ELTS3B-4R targets Chymotrypsin-like elastase family member 3B, a digestive serine protease commonly referred to as pancreatic elastase 3B or elastase 3B. The CELA3B gene is located on chromosome 1p36.12 and encodes a secreted enzyme that is highly enriched in pancreatic acinar cells. As a member of the chymotrypsin-like serine protease family, CELA3B contributes to the regulated breakdown of dietary proteins in the small intestine and plays a central role in exocrine pancreatic physiology.

CELA3B is synthesized as a preproenzyme with an N-terminal signal peptide directing entry into the secretory pathway, followed by a propeptide that maintains the enzyme in an inactive zymogen state. After processing through the endoplasmic reticulum and Golgi apparatus, it is packaged into cytoplasmic zymogen granules within pancreatic acinar cells. Upon stimulation, these granules undergo regulated exocytosis, releasing elastase 3B into the duodenal lumen where it becomes proteolytically active. The mature enzyme adopts the conserved serine protease fold with a catalytic triad characteristic of trypsin-like endopeptidases.

Chymotrypsin-like elastase family member 3B shares significant homology with CELA3A, and both are frequently discussed in the context of fecal elastase 1 testing because of 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 profile supports its use as a marker of acinar differentiation and in studies evaluating pancreatic acinar cell carcinoma and other exocrine pancreatic tumors.

Genetic studies have linked certain CELA3B variants to hereditary pancreatitis syndromes, emphasizing the importance of tightly controlled protease activation in maintaining pancreatic homeostasis. Dysregulated digestive enzyme activation is a recognized contributor to pancreatitis pathogenesis. The recombinant rabbit monoclonal clone ELTS3B-4R is developed to support research applications focused on pancreatic acinar biology, digestive enzyme regulation, and elastase family protein expression.

Researchers studying pancreatic differentiation, exocrine digestive enzyme biology, and acinar cell-associated tumor pathways may also be interested in our Elastase 3B Antibody / Pancreatic Digestive Enzyme page featuring validated immunohistochemistry and western blot applications for pancreatic research.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant rabbit monoclonal CELA3B antibody 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 82-238 from the human protein were used as the immunogen for the CELA3B antibody recombinant rabbit mAb ELTS3B-4R.

Storage

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