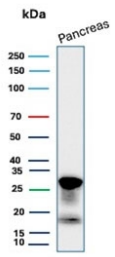
Elastase 3A Antibody / CELA3A [clone CELA3A/12552] (V5637)

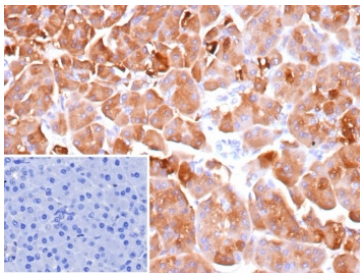
Catalog No.	Formulation	Size
V5637-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5637-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5637SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

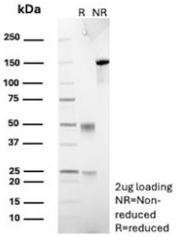
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CELA3A/12552
Purity	Protein G affinity
UniProt	P09093
Localization	Cytoplasm, Extracellular space
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 1-2ug/ml
Limitations	This Elastase 3A antibody is available for research use only.



Western blot testing of human pancreas tissue lysate with Elastase 3A antibody (clone CELA3A/12552). Predicted molecular weight ~29 kDa.



IHC staining of FFPE human pancreas tissue with Elastase 3A antibody (clone CELA3A/12552). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Elastase 3A antibody (clone CELA3A/12552) as confirmation of integrity and purity.

Description

Elastase 3A antibody targets Chymotrypsin like elastase 3A, a digestive serine protease encoded by the CELA3A gene and commonly referred to as Elastase 3A. CELA3A is predominantly expressed in pancreatic acinar cells, where it is synthesized as an inactive zymogen and stored in secretory granules before being released into the intestinal lumen. Elastase 3A is primarily localized to the cytoplasmic secretory compartment of acinar cells, reflecting its role in exocrine pancreatic function and protein digestion.

Functionally, Chymotrypsin like elastase 3A catalyzes the hydrolysis of peptide bonds in dietary proteins, contributing to efficient digestion and nutrient absorption. A short functional summary is that CELA3A supports normal exocrine pancreatic activity as part of the pancreatic elastase family of proteases. Through its proteolytic activity, Elastase 3A plays an essential role in gastrointestinal physiology and digestive enzyme balance.

At the molecular level, CELA3A belongs to the trypsin-like serine protease family and contains the conserved catalytic triad required for enzymatic activity. The protein undergoes proteolytic processing to generate active enzyme forms following secretion. Elastase 3A antibody reagents are therefore useful for studying pancreatic acinar cell differentiation, regulation of digestive enzyme expression, and protease processing in normal and diseased states. Clone CELA3A/12552 is designed to recognize Elastase 3A and supports consistent detection of CELA3A expression in research applications.

From a biological and disease relevance perspective, Elastase 3A is widely used as a marker of acinar cell identity in pancreatic tissue. Altered expression of CELA3A has been examined in pancreatitis, pancreatic injury, and pancreatic cancer, where loss of acinar markers may indicate dedifferentiation or disease progression. Elastase 3A antibody tools support studies aimed at distinguishing acinar-derived cells from ductal or endocrine populations in pancreatic pathology.

Developmentally, CELA3A expression increases with maturation of the exocrine pancreas and acquisition of digestive capacity. Clone CELA3A/12552 provides a reliable reagent for detecting Elastase 3A in studies of pancreatic biology, digestive enzyme regulation, and gastrointestinal disease. Elastase 3A antibodies from NSJ Bioreagents are supplied for research use to support investigations in pancreatic physiology and pathology.

Application Notes

Optimal dilution of the Elastase 3A antibody should be determined by the researcher.

Immunogen

A portion of amino acids 50-250 from human CELA3A protein was used as the immunogen for the Elastase 3A antibody.

Storage

Aliquot the Elastase 3A antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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