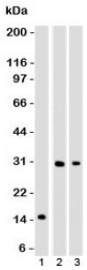
CELA3B Antibody for WB / Chymotrypsin-like elastase family member 3B [clone ELTS3B-1] (V7077)

Catalog No.	Formulation	Size
V7077-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7077-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7077SAF-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. Other species not known.
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	ELTS3B-1
Purity	Protein G affinity chromatography
UniProt	P08861
Localization	Cytoplasmic
Applications	Western Blot : 1-2ug/ml
Limitations	This CELA3B antibody is available for research use only.



Western blot analysis of CELA3B Antibody for WB (clone ELTS3B-1). Lane 1: partial recombinant protein, Lane 2: human Panc-28 cell lysate, Lane 3: human PANC1 cell lysate. A band is detected at approximately 29 kDa, consistent with the predicted molecular weight of Chymotrypsin-like elastase family member 3B / CELA3B.

Description

CELA3B Antibody for WB recognizes Chymotrypsin-like elastase family member 3B, a secreted digestive serine protease commonly referred to as pancreatic elastase 3B or elastase 3B. The CELA3B gene is located on chromosome 1p36.12 and encodes an enzyme that is highly enriched in pancreatic acinar cells, where it contributes to exocrine pancreatic function and regulated protein digestion. As a member of the chymotrypsin-like serine protease family, CELA3B participates in the controlled proteolytic breakdown of dietary substrates in the small intestine.

CELA3B is synthesized as a preproenzyme containing an N-terminal signal peptide for entry into the endoplasmic reticulum and a propeptide region that maintains the enzyme in an inactive zymogen state. Following processing in the Golgi apparatus, the protein is packaged into cytoplasmic zymogen granules within pancreatic acinar cells. Upon physiologic stimulation, these granules undergo exocytosis, releasing elastase 3B into the duodenum where it is proteolytically activated. 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 substantial sequence similarity with CELA3A, and both proteins are often discussed in the context of fecal elastase 1 measurement due to their abundance and stability in pancreatic secretions. In research settings, CELA3B expression is largely restricted to pancreatic acinar cells, where it exhibits strong cytoplasmic localization consistent with secretory granules. This lineage-associated distribution supports its use in studies of pancreatic differentiation and exocrine tumor biology.

Genetic investigations have linked specific CELA3B variants to hereditary pancreatitis phenotypes, underscoring the importance of tightly regulated protease activation in pancreatic homeostasis. Dysregulated digestive enzyme activity is a recognized contributor to pancreatitis pathogenesis. Clone ELTS3B-1 is developed as a CELA3B Antibody for WB to support detection of CELA3B protein expression in research applications involving pancreatic tissue and elastase family protein analysis.

Application Notes

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

Immunogen

A partial recombinant protein (aa 82-238) was used as the immunogen for the CELA3B antibody for western blot.

Storage

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

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