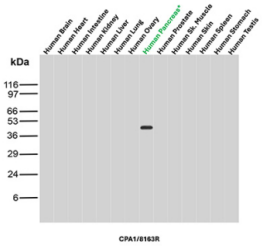
Carboxypeptidase A1 Antibody / CPA1 Pancreatic Acinar Cell Marker Antibody [clone CPA1/8163R] (V5257)

Catalog No.	Formulation	Size
V5257-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5257-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5257SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

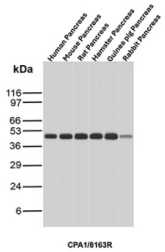
Recombinant RABBIT MONOCLONAL

Bulk quote request

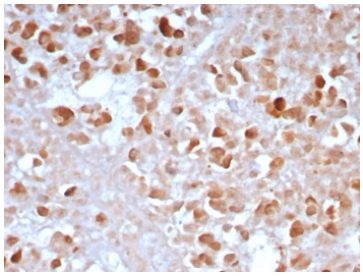
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Rabbit, Hamster, Guinea pig
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CPA1/8163R
Purity	Protein A/G affinity
UniProt	P15085
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT (Human) Western blot: 2-4ug/ml (Human/Mouse/Rat/Rabbit/Hamster/Guinea pig)
Limitations	This Carboxypeptidase A1 Antibody / CPA1 Pancreatic Acinar Cell Marker Antibody is available for research use only.



Carboxypeptidase A1 Antibody Tissue Panel WB. Western blot analysis of Carboxypeptidase A1 / CPA1 across human tissue lysates including brain, heart, intestine, kidney, liver, lung, ovary, pancreas, prostate, skeletal muscle, skin, spleen, stomach, and testis using rabbit monoclonal Carboxypeptidase A1 antibody, clone CPA1/8163R. A distinct band is detected at approximately 45 kDa exclusively in the pancreas lane, consistent with the predicted molecular weight of CPA1, demonstrating its highly restricted expression and supporting its use as a pancreatic acinar cell marker in tissue analysis.



Carboxypeptidase A1 Antibody Pancreas Multi-Species WB. Western blot analysis of Carboxypeptidase A1 / CPA1 across pancreas tissue lysates from human, mouse, rat, hamster, guinea pig, and rabbit using rabbit monoclonal Carboxypeptidase A1 antibody, clone CPA1/8163R. A band is detected at approximately 45 kDa in each species, consistent with the predicted molecular weight of CPA1, demonstrating conserved expression of this digestive enzyme and reinforcing its role as a pancreatic acinar cell marker across mammalian species.



Carboxypeptidase A1 Antibody Pancreas IHC. Immunohistochemistry of Carboxypeptidase A1 / CPA1 in FFPE human pancreas tissue using rabbit monoclonal Carboxypeptidase A1 antibody, clone CPA1/8163R. Strong HRP-DAB brown cytoplasmic staining highlights pancreatic acinar cells, consistent with the enzymeâ€™s localization to secretory granules and supporting its use as a pancreatic acinar cell marker, while nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling prior to staining.

Description

Carboxypeptidase A1 (CPA1) is a zinc-dependent digestive exopeptidase produced by pancreatic acinar cells and secreted into the digestive tract as part of the exocrine enzyme system. Carboxypeptidase A1 Antibody / CPA1 Pancreatic Acinar Cell Marker Antibody is widely used to evaluate pancreas-specific expression, particularly for identifying acinar cell populations in tissue sections. Carboxypeptidase A1 antibody, also referred to as CPA1 antibody in the literature, serves as a highly specific marker of exocrine pancreatic function and cellular differentiation.

CPA1 is synthesized as an inactive zymogen, procarboxypeptidase A1, which is activated in the small intestine by proteolytic cleavage. This enzyme plays a key role in protein digestion by removing C-terminal amino acids from peptides, functioning alongside other pancreatic proteases such as trypsin and chymotrypsin. Its expression is tightly restricted to pancreatic acinar cells, making CPA1 an excellent marker for studying exocrine pancreas biology and distinguishing acinar-derived tissues from other cell types.

In immunohistochemistry, CPA1 expression is characterized by strong cytoplasmic staining in pancreatic acinar cells, reflecting its synthesis and storage within secretory granules prior to secretion. The staining pattern is typically robust and uniform within acinar cell clusters, while endocrine islet cells and surrounding stromal elements remain largely negative. This clear contrast supports the use of Carboxypeptidase A1 antibody as a pancreatic acinar cell marker in both normal tissue analysis and disease studies.

Western blot analysis further confirms the tissue specificity of CPA1 expression, with a distinct band observed in pancreas lysates and minimal to no signal detected in other human tissues. This restricted expression profile highlights the enzymeÃ¢Â€Â™s specialized role in digestive physiology. In addition, cross-species western blot data demonstrate conserved expression of CPA1 across mammalian pancreas samples, supporting the utility of CPA1 antibody in comparative and translational research settings.

CPA1 has also been investigated in the context of pancreatic disorders, including pancreatitis and pancreatic cancer, where alterations in acinar cell function and enzyme expression can occur. As a marker of acinar differentiation, Carboxypeptidase A1 antibody provides a useful tool for assessing changes in exocrine cell populations and for distinguishing acinar-derived tumors from other pancreatic neoplasms.

The recombinant rabbit monoclonal clone CPA1/8163R antibody provides reliable detection of CPA1 in immunohistochemistry and western blot applications. Its consistent staining pattern in FFPE pancreas tissue and strong specificity in tissue panel analysis support its use in studies of pancreatic biology, digestive enzyme function, and acinar cell identity.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Carboxypeptidase A1 Antibody / CPA1 Pancreatic Acinar Cell Marker Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the Carboxypeptidase A1 antibody.

Storage

Aliquot the Carboxypeptidase A1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CPA1 antibody, Carboxypeptidase A1 antibody, Procarboxypeptidase A1 antibody, Pancreatic exopeptidase antibody, Digestive enzyme CPA1 antibody

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