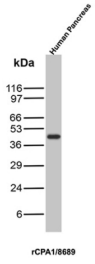
Carboxypeptidase A1 Antibody / CPA1 [clone rCPA1/8689] (V5220)

Catalog No.	Formulation	Size
V5220-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5220-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5220SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

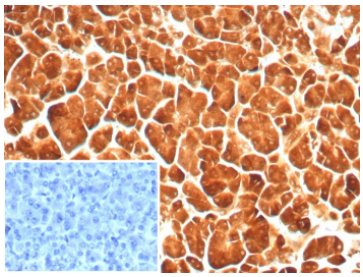
Recombinant MOUSE MONOCLONAL

Bulk quote request

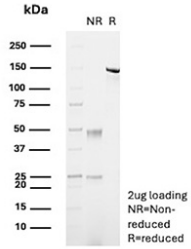
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rCPA1/8689
Purity	Protein A/G affinity
UniProt	P15085
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This Carboxypeptidase A1 antibody is available for research use only.



Carboxypeptidase A1 Antibody Pancreas WB. Western blot analysis of Carboxypeptidase A1 / CPA1 in human pancreas tissue lysate using recombinant mouse monoclonal Carboxypeptidase A1 antibody, clone rCPA1/8689. A single band is detected at approximately 45 kDa, consistent with the predicted molecular weight of CPA1, reflecting its expression as a pancreatic digestive enzyme produced by acinar cells.



Carboxypeptidase A1 Antibody Pancreas IHC. Immunohistochemistry of Carboxypeptidase A1 / CPA1 in FFPE human pancreas tissue using recombinant mouse monoclonal Carboxypeptidase A1 antibody, clone rCPA1/8689. Strong HRP-DAB brown cytoplasmic staining highlights pancreatic acinar cells, consistent with the enzymeâ€™s role in digestive protein processing, while nuclei are counterstained blue. The staining pattern shows uniform acinar cell labeling with minimal background. Inset: PBS was used in place of primary antibody as a negative control to confirm specificity of staining. 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.



Carboxypeptidase A1 Antibody SDS-PAGE Analysis. SDS-PAGE analysis of recombinant mouse monoclonal Carboxypeptidase A1 antibody, clone rCPA1/8689, under non-reducing (NR) and reducing (R) conditions. Under non-reducing conditions, the intact antibody migrates as a single band at approximately 150 kDa, consistent with full IgG structure, while reducing conditions resolve the antibody into heavy chain (~50 kDa) and light chain (~25 kDa) bands. This pattern confirms expected antibody integrity and disulfide bond-dependent structure.

Description

Human pancreatic procarboxypeptidase A exists as three different active forms, two of which are designated carboxypeptidase A1 (CPA1) and carboxypeptidase A2 (CPA2). CPA1, also known as CPA, is a 419 amino acid secreted monomeric protein that is highly expressed in pancreatic tissue. Functioning as a pancreatic exopeptidase, CPA1 uses zinc as a cofactor to catalyze the release of C-terminal amino acids from a variety of proteins, thereby playing a key role in protein digestion and degradation. Via its catalytic activity, CPA1 is also thought to be involved in zymogen (proenzyme) inhibition, probably functioning to block enzyme activation pathways. Abnormal levels of CPA1 are associated with pancreatic cancer, suggesting a possible role in either tumor progression or tumor suppression events.

For additional tissue-specific detection and characterization of CPA1 expression as a pancreatic acinar cell marker, see our Carboxypeptidase A1 antibody clone CPA1/8163R featuring validated IHC and western blot data.

Application Notes

Optimal dilution of the Carboxypeptidase A1 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human CPA1 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.

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