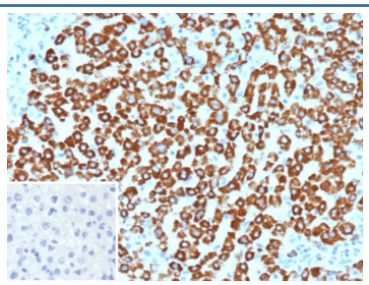
Carbamoyl phosphate synthetase 1 Antibody / CPS1 [clone CPS1/9867] (V5679)

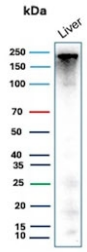
Catalog No.	Formulation	Size
V5679-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5679-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5679SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

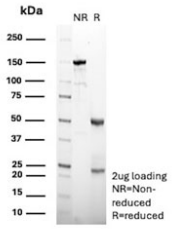
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG, kappa
Clone Name	CPS1/9867
Purity	Protein A/G affinity
UniProt	P31327
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This Carbamoyl phosphate synthetase 1 antibody is available for research use only.



IHC staining of FFPE human hepatocellular carcinoma tissue with Carbamoyl phosphate synthetase 1 antibody (clone CPS1/9867). 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.



Carbamoyl phosphate synthetase 1 Antibody Liver Western blot. WB analysis of human liver lysate with Carbamoyl phosphate synthetase 1 antibody (clone CPS1/9867). Predicted molecular weight ~165 kDa but may be observed at higher molecular weights due to glycosylation.



SDS-PAGE analysis of purified, BSA-free Carbamoyl phosphate synthetase 1 antibody (clone CPS1/9867) as confirmation of integrity and purity.

Description

This MAb recognizes a protein of 165kDa, identified as carbamoyl phosphate synthetase 1 (CPS1). This mitochondrial enzyme catalyzes synthesis of carbamoyl phosphate from ammonia and bicarbonate. This reaction is the first committed step of the urea cycle, which is important in the removal of excess urea from cells. Deficiency of CPS1 is an autosomal recessive disorder that causes hyperammonemia. CPS1 is a hepatocyte specific protein that localizes to the mitochondria of hepatocytes. It is a sensitive marker for distinguishing hepatocellular carcinomas (HCC) from other metastatic carcinomas as well as cholangio-carcinomas. HCC s occur primarily in the stomach, but they are also found in many other organs. CPS1 may also be a useful marker for intestinal metaplasia. Reportedly, strong expression of CPS1 correlates with smaller tumor size and longer patient survival. Occasionally, CPS1 is also found in gastric carcinomas as well as in a few other non-hepatic tumors.

For a validated reference of CPS1 expression in liver and hepatocellular tumors, see the CPS1 antibody clone CPS1/9859 with supporting IHC and western blot data.

Application Notes

Optimal dilution of the Carbamoyl phosphate synthetase 1 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 800-1000 from human CPS1 protein was used as the immunogen for the Carbamoyl phosphate synthetase 1 antibody.

Storage

Aliquot the Carbamoyl phosphate synthetase 1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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