

Recombinant Carbamoyl phosphate synthetase 1 Antibody / CPS1 [clone CPS1/9151R] (V5533)

Catalog No.	Formulation	Size
V5533-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5533-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5533SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

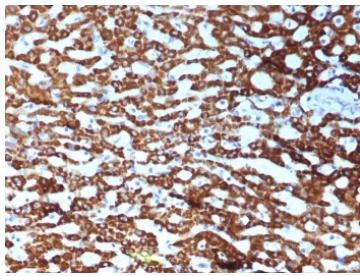
Recombinant RABBIT MONOCLONAL

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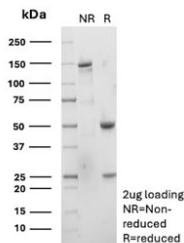
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CPS1/9151R
Purity	Protein A/G affinity
UniProt	P31327
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This recombinant Carbamoyl phosphate synthetase 1 antibody is available for research use only.



Western blot testing of human liver tissue lysate with recombinant Carbamoyl phosphate synthetase 1 antibody. Predicted molecular weight ~165 kDa.



IHC staining of FFPE human hepatocellular carcinoma tissue with recombinant Carbamoyl phosphate synthetase 1 antibody (clone CPS1/9151R). 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 recombinant Carbamoyl phosphate synthetase 1 antibody (clone CPS1/9151R) 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. HCCs 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.

Application Notes

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

Immunogen

Recombinant full-length human CPS1 protein was used as the immunogen for the recombinant Carbamoyl phosphate synthetase 1 antibody.

Storage

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

