

Mouse CPS1 / Carbamoyl-Phosphate Synthetase Monoclonal Antibody | anti-CPS1 antibody

CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Mouse Monoclonal Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA62738	Mouse	Human, Dog; Others not known.	Immunohistochemistry, Immunofluorescence

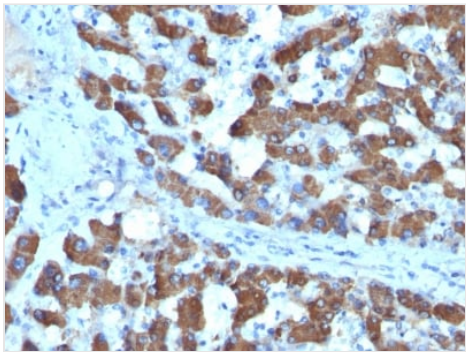
PRODUCT SYNONYMS

CPS1 / Carbamoyl-Phosphate Synthetase; Monoclonal Antibody; CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Mouse Monoclonal Antibody; Carbamoyl-phosphate synthetase 1 (CPS1); Carbamoylphosphate synthetase 1; CPSase 1; CPSASE1; anti-CPS1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Dog; Others not known.
Clonality	Monoclonal
Isotype	IgG1
Clone Number	SPM615
Specificity	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.
Form/Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Sequence Length	1506
Applicable Applications for anti-CPS1 antibody	IHC (Immunohistochemistry), IF (Immunofluorescence)
Cellular Localization	Finely granular Cytoplasmic
Immunogen	Recombinant human CPS1 protein
Hu-Chromosome Location	2q35
Positive Control	HeLa cells. Liver or Hepatocellular Carcinoma (HCC)
Preparation and Storage	Antibody with azide - store at 2 to 8°C. Non-hazardous. No MSDS required.

IMAGES



IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Hepatocellular Carcinoma stained with CPS1
Monoclonal Antibody (SPM615).

ADDITIONAL INFORMATION

References	Haraguchi, Y., et al. 1991. Cloning and sequence of a cDNA encoding human carbamyl phosphate synthetase I: molecular analysis of hyperam- monemia. Gene 107: 335-340. Ramos-Vara, J.A., et al. Histochem 2002; J. 34: 397-401. Fan, Z., et al. Mod. Pathol 2003; 16: 137-144, 2003.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	169790915
NCBI GeneID	1373
NCBI Accession #	NP_001116105.1
NCBI GenBank Nucleotide #	NM_001122633.2
UniProt Accession #	P31327; O43774; Q53TL5; Q59HF8; Q7Z5I5; B7Z818; J3KQL0
Molecular Weight	~165kDa
NCBI Official Full Name	carbamoyl-phosphate synthase
NCBI Official Synonym Full Names	carbamoyl-phosphate synthase 1
NCBI Official Symbol	CPS1
NCBI Official Synonym Symbols	PHN; CPSASE1
NCBI Protein Information	carbamoyl-phosphate synthase [ammonia], mitochondrial
UniProt Protein Name	Carbamoyl-phosphate synthase [ammonia], mitochondrial
UniProt Gene Name	CPS1
UniProt Synonym Gene Names	CPSase I
UniProt Entry Name	CPSM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.