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CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM615]
Catalog # AH11120

Specification

CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide - Product Information

Application	**IHC, IF**
Primary Accession	P31327
Other Accession	1373, 149252
Reactivity	**Human, Dog**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG1**
Calculated MW	**~165kDa KDa**

CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide - Additional Information

Gene ID 1373

Other Names
Carbamoyl-phosphate synthase [ammonia], mitochondrial, 6.3.4.16, Carbamoyl-phosphate synthetase I, CPSase I, CPS1

Application Note
IHC~~1:100~500<br \>IF~~1:50~200

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide - Protein Information

Name CPS1

Function
Involved in the urea cycle of ureotelic animals where the enzyme plays an important role in removing excess ammonia from the cell.

Cellular Location
Mitochondrion. Nucleus, nucleolus. Cell membrane {ECO:0000250|UniProtKB:Q8C196}; Peripheral

membrane protein; Extracellular side {ECO:0000250|UniProtKB:Q8C196} Note=Localizes to the cell surface of hepatocytes {ECO:0000250|UniProtKB:Q8C196}

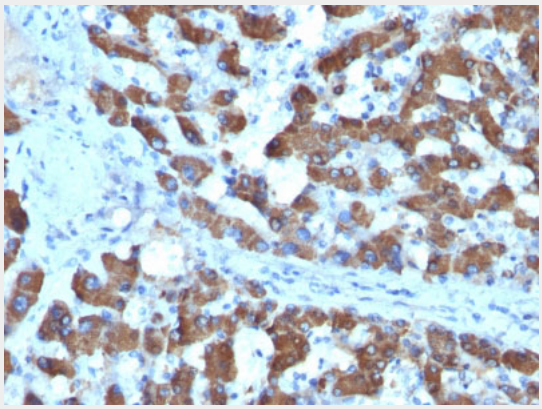
Tissue Location
Primarily in the liver and small intestine.

CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide - Images



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

CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody - With BSA and Azide - Background

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.ĀDeficiency 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.

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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. |