

### **36-1065: Monoclonal Antibody to CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker)(Clone : CPS1/1022)**

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	CPS1/1022
<b>Application :</b>	IHC
<b>Reactivity :</b>	Human
<b>Gene :</b>	CPS1
<b>Gene ID :</b>	1373
<b>Uniprot ID :</b>	P31327
<b>Format :</b>	Purified
<b>Alternative Name :</b>	CPS1
<b>Isotype :</b>	Mouse IgG1, kappa
<b>Immunogen Information :</b>	Recombinant human CPS1 protein

#### **Description**

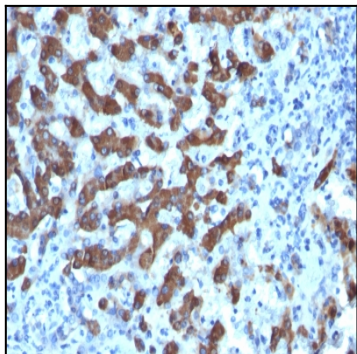
This MAb recognizes a protein of 165kDa, identified as carbamoyl phosphate synthetase 1 (CPS1). This mitochondrial enzyme catalyzes synthesis of carbamoyl phosphate from ammonia and bicarbonate. This reaction is the first committed step of the urea cycle, which is important in the removal of excess urea 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.

#### **Product Info**

<b>Amount :</b>	100 µg
<b>Purification :</b>	Affinity Chromatography
<b>Content :</b>	100 µg in 500 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
<b>Storage condition :</b>	Store the antibody at 4°C; stable for 6 months. For long-term storage; store at -20°C. Avoid repeated freeze and thaw cycles.

#### **Application Note**

Immunohistochemistry (Formalin-fixed) (1-2µg/ml for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes);



Formalin-fixed, paraffin-embedded human Hepatocellular Carcinoma stained with CPS1 Monoclonal Antibody (CPS1/1022).