

## CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody

Mouse Monoclonal Antibody [Clone CPS1/9867]

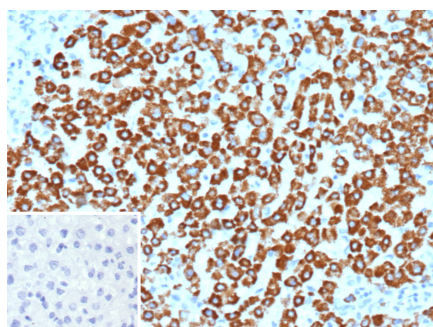
| Catalog No       | Format  | Size   |
|------------------|---|--------|
| 1373-MSM27-P0    | Purified Ab with BSA and Azide at 200ug/ml    | 20 ug  |
| 1373-MSM27-P1    | Purified Ab with BSA and Azide at 200ug/ml    | 100 ug |
| 1373-MSM27-P1ABX | Purified Ab WITHOUT BSA and Azide at 1.0mg/ml | 100 ug |

| Applications               | Tested Dillution | Note  |
|----------------------------|------------------|---|
| Immunohistochemistry (IHC) | 1-2ug/ml         | 30 min 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 |
| Western Blot (WB)          | 2-4ug/ml         |   |

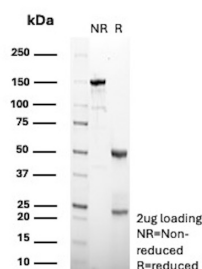
| Product Details        |  |
|------------------------|--|
| Clone                  | CPS1/9867  |
| Gene Name              | CPS1   |
| Immunogen              | Recombinant fragment (around aa800-1000) of human CPS1 protein (exact sequence is proprietary) |
| Host                   | Mouse  |
| Clonality              | Monoclonal   |
| Isotype / Light Chain  | IgG / Kappa  |
| Mol. Weight of Antigen | ~165kDa  |
| Cellular Localization  | Cytoplasm  |
| Species Reactivity     | Human  |
| Positive Control       | Human liver or hepatocellular carcinoma (HCC).   |

*\*Optimal dilution for a specific application should be determined.*

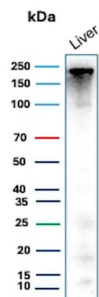
### Product Images for CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Antibody



Formalin-fixed, paraffin-embedded human hepatocellular carcinoma stained with CPS1 Mouse Monoclonal Antibody (CPS1/9868). Inset: PBS instead of primary antibody; secondary only negative control.



SDS-PAGE Analysis of Purified CPS1 Mouse Monoclonal Antibody (CPS1/9867). Confirmation of Purity and Integrity of Antibody.



Western Blot Analysis of human liver tissue lysate using CPS1 Mouse Monoclonal Antibody (CPS1/9867). Predicted band size: 165kDa / Observed band size: 200kDa

### Specificity & Comments

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.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

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.

### Storage and Stability

Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

### Research Areas

Cardiovascular, Nuclear Marker