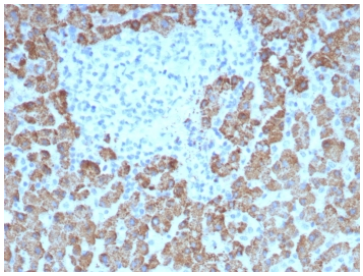
# CPS1 Antibody / Carbamoyl phosphate synthetase 1 [clone CPS1/8417] (V4945)

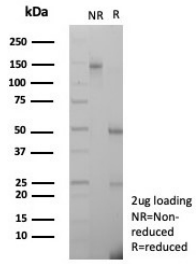
| Catalog No. | Formulation | Size |
|---|---|---|
| V4945-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V4945-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V4945SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | CPS1/8417 |
| **Purity** | Protein A/G affinity |
| **UniProt** | P31327 |
| **Localization** | Cytoplasm |
| **Applications** | Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT |
| **Limitations** | This CPS1 antibody is available for research use only. |



IHC staining of FFPE human hepatocellular carcinoma tissue with CPS1 antibody (clone CPS1/8417). 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 CPS1 antibody (clone CPS1/8417) 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. 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.

## Application Notes

Optimal dilution of the CPS1 antibody should be determined by the researcher.

## Immunogen

Recombinant human CPS1 protein was used as the immunogen for the CPS1 antibody.

## Storage

Aliquot the CPS1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com
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