

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

Catalog Number: M01320

About CPS1

This monoclonal antibody 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.

Overview

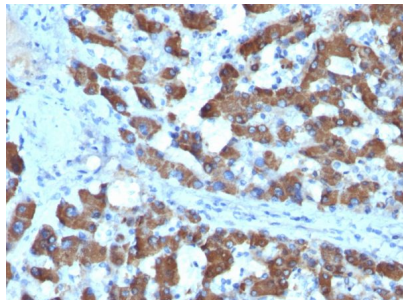
Product Name	Anti-CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Monoclonal Antibody
Reactive Species	Dog, Human
Description	Boster Bio Anti-CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Monoclonal Antibody (Catalog # M01320). Tested in IF, IHC applications. This antibody reacts with Human, Dog.
Conjugate	Biotin
Application	IF, IHC
Clonality	Monoclonal Clone: SPM615
Formulation	Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage Instructions	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.
Host	Mouse
Uniprot ID	P31327

Technical Details

Immunogen	Recombinant human CPS1 protein
Predicted Reactive Species	Bovine, Canine, Mouse, Orangutan, Pig, Rabbit, Rat, Deer
Cross Reactivity	Does not cross-react with primate, avian or amphibian GR.
Isotype	IgG1, kappa

Form	Liquid
Concentration	Purified antibody with BSA and azide at 200ug/ml
Purification	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A/G.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunofluorescence (1-2ug/ml) Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 1mM EDTA, pH 7.5-8.5, for 45 min at 95&degC followed by cooling at RT for 20 minutes)Optimal dilution for a specific application should be determined.

Anti-CPS1 / Carbamoyl-Phosphate Synthetase (Hepatocellular Marker) Monoclonal Antibody (M01320) Images



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

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