

For Research Use Only

CPS1 Polyclonal antibody

Catalog Number: 18703-1-AP

Featured Product

16 Publications



Basic Information

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| Catalog Number: 18703-1-AP | GenBank Accession Number: BC140943 | Purification Method: Antigen affinity purification |
| Size: 150ul, Concentration: 400 µg/ml by Nanodrop; | GeneID (NCBI): 1373 | Recommended Dilutions: WB 1:2000-1:14000 IHC 1:50-1:500 IF 1:50-1:500 |
| Source: Rabbit | Full Name: carbamoyl-phosphate synthetase 1, mitochondrial | |
| Isotype: IgG | Calculated MW: 165 kDa Observed MW: 140-165 kDa | |

Applications

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|--|--|
| Tested Applications: IF, IHC, WB, ELISA | Positive Controls: |
| Cited Applications: IF, IHC, WB | WB : mouse liver tissue, HeLa cells, rat liver tissue |
| Species Specificity: human, mouse, rat | IHC : human liver cancer tissue, |
| Cited Species: human, mouse | IF : HepG2 cells, |
| Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0 | |

Background Information

CPS1 is an enzyme that catalyzes the first committed step of the hepatic urea cycle, which is important in the removal of excess urea from cells. Expressed primarily in the liver and small intestine, CPS1 can be used as a marker for mitochondria in these tissues. In addition, CPS1 expression appears to be lost in adenocarcinomas of the small intestine. The antibody can recognize two isoforms of this gene around 165 kDa and 116 kDa.

Notable Publications

| Author | Pubmed ID | Journal | Application |
|--------------|-----------|----------------|-------------|
| Xi Liu | 31565867 | J Cell Mol Med | WB |
| Sung-Jae Cha | 34799567 | Nat Commun | IF |
| Yin Cao | 30901224 | J Proteome Res | WB, IHC |

Storage

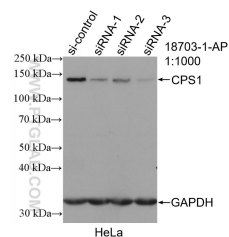
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

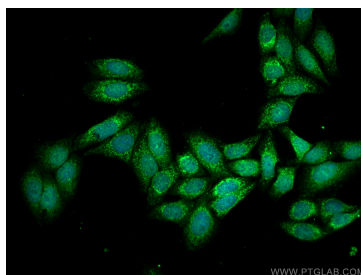
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

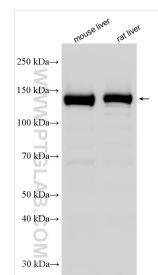
Selected Validation Data



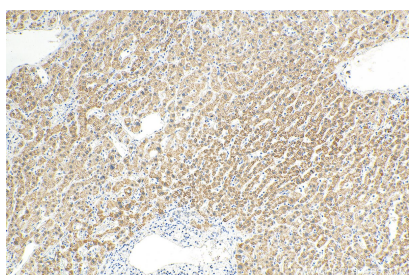
WB result of CPS1 antibody (18703-1-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-CPS1 transfected HeLa cells.



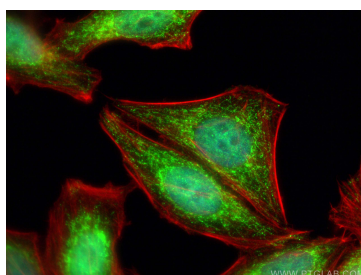
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CPS1 antibody (18703-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Various lysates were subjected to SDS PAGE followed by western blot with 18703-1-AP (CPS1 antibody) at dilution of 1:7000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 18703-1-AP (CPS1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CPS1 antibody (18703-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).