ARG56184
anti-CPS1 antibody [CPS1/1022]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [CPS1/1022] recognizes CPS1
Tested Reactivity	Hu
Tested Application	IHC-P
Host	Mouse
Clonality	Monoclonal
Clone	CPS1/1022
Isotype	IgG1
Target Name	CPS1
Species	Human
Immunogen	Recombinant human CPS1 protein.
Conjugation	Un-conjugated
Alternate Names	CPSASE1; Carbamoyl-phosphate synthase [ammonia], mitochondrial; CPSase I; PHN; Carbamoyl-phosphate synthetase I; EC 6.3.4.16

Application Instructions

Application table

Application	Dilution
IHC-P	1 - 2 µg/ml

Application Note

IHC-P: Antigen Retrieval: Boil tissue section in 10 mM Tris with 1 mM EDTA (pH 9.0) for 10-20 min, followed by cooling at RT for 20 min.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

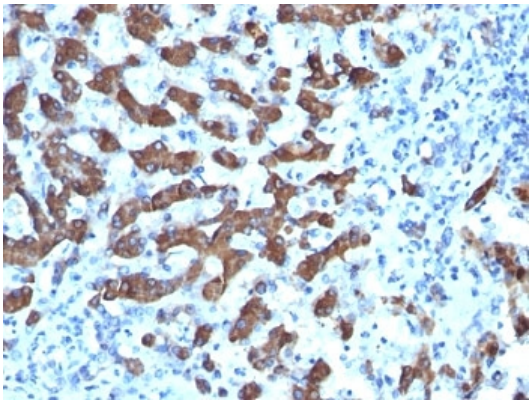
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.05% Sodium azide and 0.1 mg/ml BSA.
Preservative	0.05% Sodium azide
Stabilizer	0.1 mg/ml BSA
Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 1373 Human Swiss-port # P31327 Human
Gene Symbol	CPS1
Gene Full Name	carbamoyl-phosphate synthase 1, mitochondrial
Background	The mitochondrial enzyme encoded by this gene 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. The encoded protein may also represent a core mitochondrial nucleoid protein. Three transcript variants encoding different isoforms have been found for this gene. The shortest isoform may not be localized to the mitochondrion. Mutations in this gene have been associated with carbamoyl phosphate synthetase deficiency, susceptibility to persistent pulmonary hypertension, and susceptibility to venoocclusive disease after bone marrow transplantation.[provided by RefSeq, May 2010]
Function	Involved in the urea cycle of ureotelic animals where the enzyme plays an important role in removing excess ammonia from the cell. [UniProt]
Calculated Mw	165 kDa
PTM	Undergoes proteolytic cleavage in the C-terminal region corresponding to the loss of approximately 12 AA residues from the C-terminus. Succinylated at Lys-287 and Lys-1291. Desuccinylated at Lys-1291 by SIRT5, leading to activation (By similarity). Glutarylated. Glutarylation levels increase during fasting. Deglutarylated by SIRT5 at Lys-55, Lys-219, Lys-412, Lys-889, Lys-892, Lys-915, Lys-1360 and Lys-1486, leading to activation.
Cellular Localization	Finely granular cytoplasmic

Images



ARG56184 anti-CPS1 antibody [CPS1/1022] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human hepatocellular carcinoma stained with ARG56184 anti-CPS1 antibody [CPS1/1022].