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CPS1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16053a

Product Information

Application	WB, E
Primary Accession	P31327
Other Accession	NP_001116105.1, NP_001866.2, NP_001116106.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35290
Calculated MW	164939
Antigen Region	262-291

Additional Information

Gene ID	1373
Other Names	Carbamoyl-phosphate synthase [ammonia], mitochondrial, Carbamoyl-phosphate synthetase I, CPSase I, CPS1
Target/Specificity	This CPS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 262-291 amino acids from the N-terminal region of human CPS1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CPS1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CPS1
Function	Involved in the urea cycle of ureotelic animals where the enzyme plays an important role in removing excess ammonia from the cell.

Cellular Location	Mitochondrion. Nucleus, nucleolus. Cell membrane {ECO:0000250|UniProtKB:Q8C196}; Peripheral membrane protein; Extracellular side {ECO:0000250|UniProtKB:Q8C196} Note=Localizes to the cell surface of hepatocytes {ECO:0000250|UniProtKB:Q8C196}
Tissue Location	Primarily in the liver and small intestine.

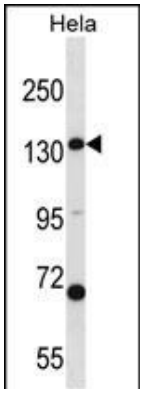
Background

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.

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Jia, P., et al. Schizophr. Res. 122 (1-3), 38-42 (2010) :
Pekkala, S., et al. Hum. Mutat. 31(7):801-808(2010)
Huo, R., et al. J. Biochem. Mol. Biol. 38(1):28-33(2005)
Hoshide, R., et al. Genomics 28(1):124-125(1995)

Images



CPS1 Antibody (N-term) (Cat. #AP16053a) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the CPS1 antibody detected the CPS1 protein (arrow).

Citations

- Systematic analysis of mRNA expression profiles in NSCLC cell lines to screen metastasis-related genes.