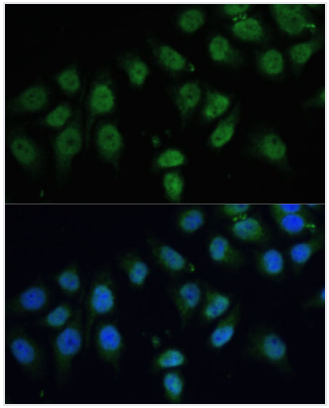
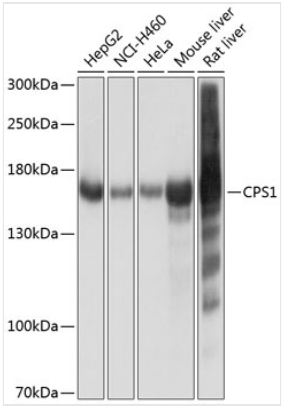
CPS1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CPS1, Polyclonal Antibody
Full Product Name	CPS1 Rabbit Polyclonal Antibody
Product Gene Name	anti-CPS1 antibody
Product Synonym Names	CPS1; CPSASE1; PHN
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Purity/Purification	Affinity purification
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	165,650 Da
OMIM	gene 615371
3D Structure	ModBase 3D Structure for P31327
Immunogen	Recombinant fusion protein of human CPS1 (NP_001116105.1).
Product Categories/Family for anti-CPS1 antibody	Primary Antibody
Applications Tested/Suitable for anti-CPS1 antibody	Western Blot (WB), Immunofluorescence (IF)
Application Notes for anti-CPS1 antibody	WB: 1:1000-1:2000 IF: 1:50-1:200
Related Product Information for anti-CPS1 antibody	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.
Other Notes	Small volumes of anti-CPS1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CPS1 purchase	MBS9466437 is an antibody targeting CPS1. Also known as CPS1 Rabbit Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Immunofluorescence (IF) of anti-CPS1 antibody
Immunofluorescence analysis of HeLa cells using CPS1 Polyclonal at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Western Blot (WB) of anti-CPS1 antibody
Western blot analysis of extracts of various cell lines, using CPS1 at 1:1000 dilution.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CPS1. It may not necessarily be applicable to this product.

NCBI GI #	21361331
NCBI GeneID	1373
NCBI Accession #	NP_001866.2
UniProt Primary Accession #	P31327
UniProt Secondary Accession #	O43774; Q53TL5; Q59HF8; Q7Z5I5; B7Z818; J3KQL0
UniProt Related Accession #	P31327
GenBank Nucleotide #	NM_001875.4
NCBI Official Full Name	carbamoyl-phosphate synthase
NCBI Official Synonym Full Names	carbamoyl-phosphate synthase 1, mitochondrial
NCBI Official Symbol	CPS1
NCBI Official Synonym Symbols	PHN; CPSASE1
UniProt Protein Name	Carbamoyl-phosphate synthase [ammonia], mitochondrial
UniProt Synonym Protein Names	Carbamoyl-phosphate synthetase I; CPSase I
Protein Family	Carboxypeptidase
UniProt Gene Name	CPS1
UniProt Synonym Gene Names	CPSase I
UniProt Entry Name	CPSM_HUMAN
NCBI Protein Information	carbamoyl-phosphate synthase [ammonia], mitochondrial; carbamoyl-phosphate synthase [ammonia], mitochondrial; carbamoylphosphate synthetase I

UniProt Comments for CPS1	CPS1: Involved in the urea cycle of ureotelic animals where the enzyme plays an important role in removing excess ammonia from the cell. Defects in CPS1 are the cause of carbamoyl phosphate synthetase 1 deficiency (CPS1D). CPS1D is an autosomal recessive disorder of the urea cycle causing hyperammonemia. Clinical features include protein intolerance, intermittent ataxia, seizures, lethargy, developmental delay and mental retardation. Genetic variations in CPS1 influence the availability of precursors for nitric oxide (NO) synthesis and play a role in clinical situations where endogenous NO production is critically important, such as neonatal pulmonary hypertension, increased pulmonary artery pressure following surgical repair of congenital heart defects or hepatovenocclusive disease following bone marrow transplantation. Infants with neonatal pulmonary hypertension homozygous for Thr-1406 have lower L-arginine concentrations than neonates homozygous for Asn-1406. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Amino Acid Metabolism - arginine and proline; Mitochondrial; Nucleolus; Ligase; EC 6.3.4.16; Energy Metabolism - nitrogen; Amino Acid Metabolism - alanine, aspartate and glutamate Chromosomal Location of Human Ortholog: 2q35 Cellular Component: protein complex; mitochondrial matrix; mitochondrial inner membrane; nucleolus Molecular Function: carbamoyl-phosphate synthase (ammonia) activity; protein binding; glutamate binding; carbamoyl-phosphate synthase (glutamine-hydrolyzing) activity; endopeptidase activity; protein complex binding; phospholipid binding; calcium ion binding; ATP binding Biological Process: response to food; response to drug; glycogen catabolic process; arginine biosynthetic process; response to toxin; response to lipopolysaccharide; homocysteine metabolic process; positive regulation of vasodilation; proteolysis; response to amino acid stimulus; nitric oxide metabolic process; response to starvation; citrulline biosynthetic process; response to zinc ion; triacylglycerol catabolic process; glutamine catabolic process; midgut development; anion homeostasis; response to amine stimulus; urea cycle Disease: Pulmonary Hypertension, Neonatal, Susceptibility To; Carbamoyl Phosphate Synthetase I Deficiency, Hyperammonemia Due To
Research Articles on CPS1	**1.** CPS1 becomes readily detectable upon hepatocyte apoptotic and necrotic death. Its abundance and short serum half-life suggest that it may be a useful prognostic biomarker in acute liver injury.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-mouse-rat-antibody/cps1/9466437