

Product datasheet

Anti-CPS1 antibody ab3682

★★★★★ [9 Abreviews](#) [21 References](#) [3 Images](#)

Overview

Product name	Anti-CPS1 antibody
Description	Rabbit polyclonal to CPS1
Host species	Rabbit
Specificity	When the antibody is used at 1/2000 some lower molecular weight bands appear in COS-7 cells, the extent of which is significantly reduced when the antibody is used at 1/10,000.
Tested applications	Suitable for: IHC-Fr, IHC-P, IP, ICC/IF, WB
Species reactivity	Reacts with: Mouse, Rat, African green monkey
Immunogen	Full length native protein (purified) corresponding to Rat CPS1.
General notes	<p>OMIM reference: 114010 Alternative name: carbamoylphosphate synthetase 1, CAD</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Add glycerol to a final volume of 50% for extra stability and aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.02% Sodium azide
Purity	Whole antiserum
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab3682 in the following tested applications.

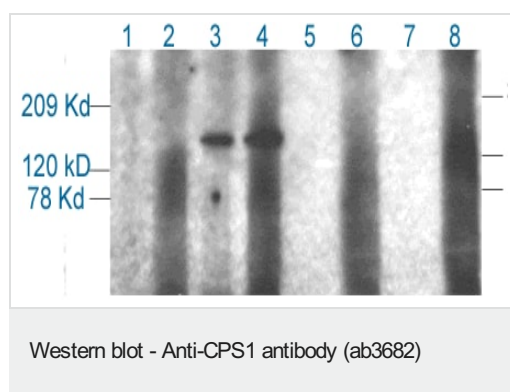
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr	★★★★★ (2)	Use at an assay dependent concentration.
IHC-P	★★★★★ (1)	Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.
WB	★★★★★ (5)	Use at an assay dependent concentration.

Target

Function	Involved in the urea cycle of ureotelic animals where the enzyme plays an important role in removing excess ammonia from the cell.
Tissue specificity	Primarily in the liver and small intestine.
Involvement in disease	<p>Defects in CPS1 are the cause of carbamoyl phosphate synthetase 1 deficiency (CPS1D) [MIM:237300]. 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.</p> <p>Note=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.</p>
Sequence similarities	<p>Contains 2 ATP-grasp domains.</p> <p>Contains 1 glutamine amidotransferase type-1 domain.</p>
Domain	The type-1 glutamine amidotransferase domain is defective.
Cellular localization	Mitochondrion.

Images



Lane 1: 5 ul of 2ml lysate cos-7 cells transfected with full length CPS 1. Before IP

Lane 2: cos-7 cells transfected with full length CPS 1. IP with 5 ul of pre-immune serum

Lane 3: cos-7 cells transfected with full length CPS 1. IP with 2 ul of polyclonal antibody anti CPS 1 (ab3682)

Lane 4: cos-7 cells transfected with full length CPS 1. IP with 5 ul of polyclonal antibody anti CPS 1 (ab3682)

Lane 5: 5 ul of 2ml lysate cos-7 cells transfected with empty vector (pCMV5-tr). Before IP

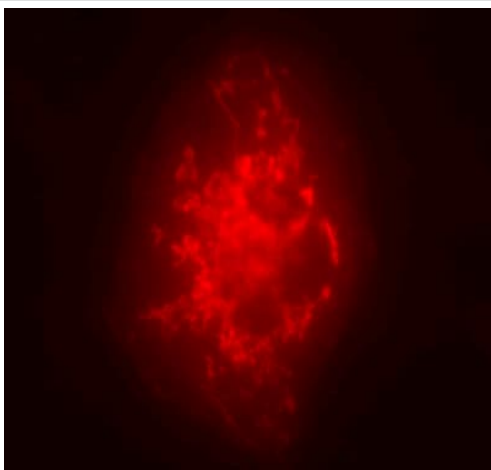
Lane 6: cos-7 cells transfected with empty vector (pCMV5-tr). IP with 5 ul of polyclonal antibody anti CPS 1 (ab3682)

Lane 7: 5 ul of 2ml lysate untransfected cos-7 cells. Before IP

Lane 8: untransfected cos-7 cells. IP with 5 ul of polyclonal antibody anti CPS 1 (ab3682) Ab3682 can IP CPS1 transiently expressed in COS-7 cells.

Lane 1: 5 ul of 2ml lysate cos-7 cells transfected with full length CPS 1. Before IP

Lane 2: cos-7 cells transfected with full length CPS 1. IP

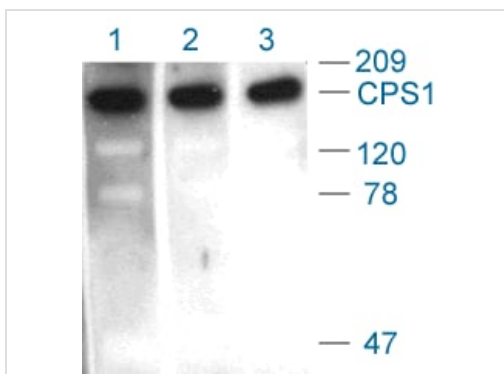


Immunocytochemistry/ Immunofluorescence - Anti-CPS1 antibody (ab3682)

CPS-1 localisation is consistent with the reticulated pattern of liver mitochondria.

Rabbit polyclonal to CPS-1 (ab3682), at 1/5000 on COS-7 (African green monkey kidney fibroblast-like cell line) cells transiently transfected with pCMV5-CPS 1 plasmid (Corvi, M.M and Berthiaume, L.G. unpublished data).

Secondary: donkey anti-rabbit (Texas Red).



Western blot - Anti-CPS1 antibody (ab3682)

Western blot using Rabbit polyclonal to CPS 1 (ab3682). All lanes loaded with 100 ng of purified CPS 1

Lane 1: ab3682 1/500

Lane 2: ab3682 1/1000

Lane 3: ab3682 1/2000 Western blot using Rabbit polyclonal to CPS 1 (ab3682).

All lanes loaded with 100 ng of purified CPS 1

Lane 1: ab3682 1/500

Lane 2: ab3682 1/1000

Lane 3: ab3682 1/2000

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