# abcam

# Product datasheet

# Anti-CPS1 antibody ab45956

★★★★★ 4 Abreviews 18 References 3 图像

#### 概述

产品名称 Anti-CPS1抗体

描述 兔多克隆抗体to CPS1

**宿主** Rabbit

经测试应用 适用于: WB, ICC/IF, IHC-P

种属反应性 与反应: Human

预测可用于: Mouse, Rat 🔷

免疫原 Synthetic peptide corresponding to Human CPS1 aa 800-900 conjugated to keyhole limpet

haemocyanin.

(Peptide available as ab45955)

常规说明

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.

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

性能

形式 Liquid

**存放说明** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

**存储溶液** pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

scientific support team who will be happy to help.

纯**度** Immunogen affinity purified

**克隆** 多克隆

1

同种型 lgG

#### 应用

## The Abpromise guarantee Abpromise™承诺保证使用ab45956于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	* * * * * <u>(2)</u>	Use a concentration of 1 µg/ml. Detects a band of approximately 150 kDa (predicted molecular weight: 140 kDa).
ICC/IF	*** <u>*</u>	Use a concentration of 1 µg/ml.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

#### 靶标

功能 Involved in the urea cycle of ureotelic animals where the enzyme plays an important role in

removing excess ammonia from the cell.

组织**特异性** Primarily in the liver and small intestine.

疾病相关 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.

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.

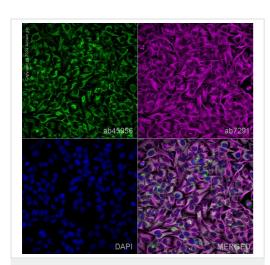
序列相似性 Contains 2 ATP-grasp domains.

Contains 1 glutamine amidotransferase type-1 domain.

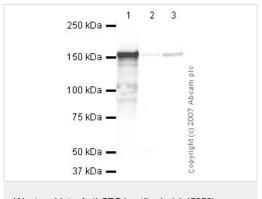
结**构域** The type-1 glutamine amidotransferase domain is defective.

细胞定位 Mitochondrion.

#### 图片



Immunocytochemistry/ Immunofluorescence - Anti-CPS1 antibody (ab45956)



Western blot - Anti-CPS1 antibody (ab45956)

ab45956 staining CPS1 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab45956 at 1µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with ab150081, Goat polyclonal Secondary Antibody to Rabbit lgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and ab150120, Goat polyclonal Secondary Antibody to Mouse lgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue). Also suitable in cells fixed with 4% paraformaldehyde (10 min).Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

All lanes: Anti-CPS1 antibody (ab45956) at 1 µg/ml

**Lane 1 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

**Lane 3 :** HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

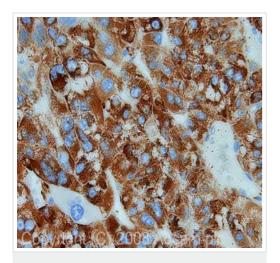
Lysates/proteins at 10 µg per lane.

# **Secondary**

**All lanes :** Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

**Predicted band size:** 140 kDa **Observed band size:** 150 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-CPS1 antibody (ab45956)

IHC image of CPS1 staining in human liver carcinoma FFPE section, performed on a Bond<sup>TM</sup> system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab45956, 1µg/ml, for 8 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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