

Product datasheet

Anti-CPS1 antibody [EPR7494] ab128942

Recombinant RabMAb

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Overview

Product name	Anti-CPS1 antibody [EPR7494]
Description	Rabbit monoclonal [EPR7494] to CPS1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Flow Cyt (Intra)
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human CPS1 aa 1450-1550. The exact sequence is proprietary.
Positive control	HeLa cell lysate; Human fetal liver lysate; Human liver tissue
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7494

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab128942 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
WB		1/1000 - 1/10000. Detects a band of approximately 150 kDa (predicted molecular weight: 165 kDa).
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt (Intra)		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

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.

Sequence similarities

Contains 2 ATP-grasp domains.
Contains 1 glutamine amidotransferase type-1 domain.

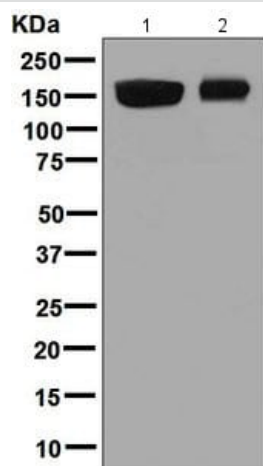
Domain

The type-1 glutamine amidotransferase domain is defective.

Cellular localization

Mitochondrion.

Images



Western blot - Anti-CPS1 antibody [EPR7494] (ab128942)

All lanes : Anti-CPS1 antibody [EPR7494] (ab128942) at 1/1000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : Human fetal liver tissue lysate

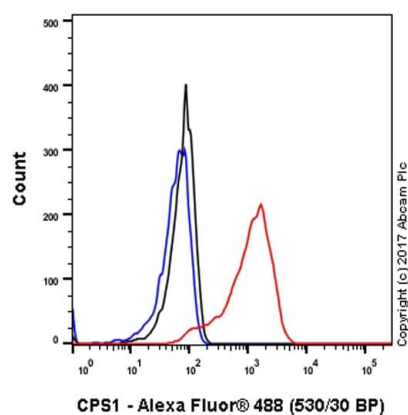
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

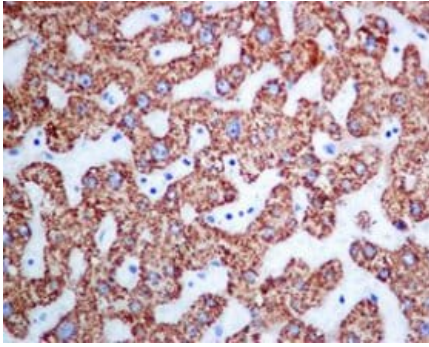
Predicted band size: 165 kDa

Observed band size: 150 kDa



Flow Cytometry (Intracellular) - Anti-CPS1 antibody [EPR7494] (ab128942)

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling CPS1 with unpurified ab128942 at 1/200 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti-rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CPS1 antibody [EPR7494] (ab128942)

ab128942, at 1/250 dilution, staining CPS1 in paraffin-embedded Human liver tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Anti-CPS1 antibody [EPR7494] (ab128942)

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

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