

HRP Anti-CPS1 antibody [EPR7493-3] ab198969

Recombinant RabMAb

3 Images

Overview

| | |
|----------------------------|---|
| Product name | HRP Anti-CPS1 antibody [EPR7493-3] |
| Description | HRP Rabbit monoclonal [EPR7493-3] to CPS1 |
| Host species | Rabbit |
| Conjugation | HRP |
| Tested applications | Suitable for: WB, IHC-P |
| Species reactivity | Reacts with: Mouse, Rat, Human |
| Immunogen | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | WB: Human fetal liver, mouse liver and rat liver tissue lysates. IHC-P: normal human liver tissue sections. |
| 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> |

Properties

| | |
|-----------------------------|--|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark. |
| Storage buffer | <p>pH: 7.40</p> <p>Preservative: 0.1% Proclin 300 Solution</p> <p>Constituents: PBS, 1% BSA, 30% Glycerol (glycerin, glycerine)</p> |
| Purity | Protein A purified |
| Clonality | Monoclonal |
| Clone number | EPR7493-3 |

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab198969 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 | | 1/5000. Detects a band of approximately 165 kDa (predicted molecular weight: 165 kDa). |
| IHC-P | | 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |

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.

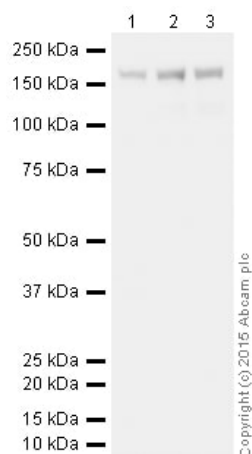
Domain

The type-1 glutamine amidotransferase domain is defective.

Cellular localization

Mitochondrion.

Images



Western blot - HRP Anti-CPS1 antibody [EPR7493-3] (ab198969)

All lanes : HRP Anti-CPS1 antibody [EPR7493-3] (ab198969) at 1/5000 dilution

Lane 1 : Fetal Liver (Human) Normal Tissue Lysate

Lane 2 : Liver (Mouse) Tissue Lysate

Lane 3 : Liver (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

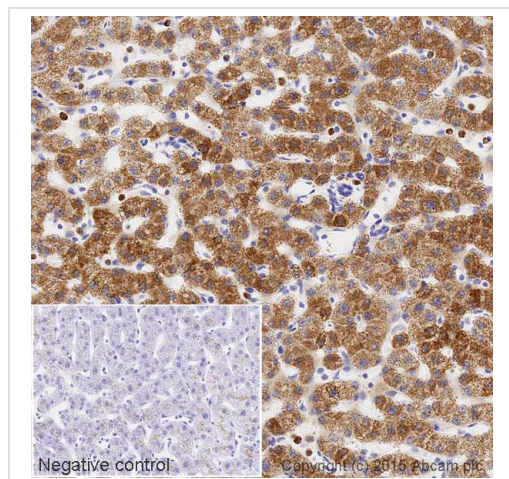
Performed under reducing conditions.

Predicted band size: 165 kDa

Observed band size: 165 kDa

Exposure time: 30 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab198969 overnight at 4°C. Antibody binding was visualised using ECL development solution [ab133406](#).







Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-CPS1 antibody [EPR7493-3] (ab198969)

IHC image of CPS1 staining in a section of formalin-fixed paraffin-embedded normal human liver tissue*, performed on a Leica BOND. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab198969 at 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.

Why choose a recombinant antibody?

| | |
|--|--|
|  <p>Research with confidence Consistent and reproducible results</p> |  <p>Long-term and scalable supply Recombinant technology</p> |
|  <p>Success from the first experiment Confirmed specificity</p> |  <p>Ethical standards compliant Animal-free production</p> |

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