abcam

Product datasheet

Human SLC25A13 (Citrin) knockout HeLa cell lysate ab258192

3 Images

Overview

Product name	Human SLC25A13 (Citrin) knockout HeLa cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	HeLa
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 1 bp deletion in exon3 and 1 bp insertion in exon3.
Passage number	<20
Knockout validation	Sanger Sequencing, Western Blot (WB)
Reconstitution notes	To use as WB control, resuspend the lyophilizate in 50 µL of LDS* Sample Buffer to have a final concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M DTT. **Usage of SDS sample buffer is not recommended with these lyophilized lysates.*
Notes	**Lysate preparation:** Our lysates are made using RIPA buffer to which we add a protease inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured.* If you require a native form of the protein please use the live cell version - found **here**. Please refer to our lysis protocol for further details on how our lysates are prepared. **User storage instructions:** Lyophilizate may be stored at 4°C. After reconstitution, store at -20°C for short-term storage or -80°C for long-term storage. Access thousands of knockout cell lysates, generated from commonly used cancer cell lines. **See here for more information on knockout cell lysates.** Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses. This product is subject to limited use licenses from The Broad Institute, ERS Genomics Limited and Sigma-Aldrich Co. LLC, and is developed with patented technology. For full details of the licenses and patents please refer to our **limited use license** and **patent pages**.
Tested applications	**Suitable for:** WB

Properties

Storage instructions Store at -80°C. Please refer to protocols.

Components	1 kit
ab260495 - Human SLC25A13 knockout HeLa cell lysate	1 x 100µg
ab255929 - Human wild-type HeLa cell lysate	1 x 100µg

Cell type epithelial

Disease Adenocarcinoma

Gender Female

STR Analysis Amelogenin X D5S818: 11, 12 D13S317: 12, 13.3 D7S820: 8, 12 D16S539: 9, 10 vWA: 16, 18 TH01: 7 TPOX: 8,12 CSF1PO: 9, 10

Target

Function Catalyzes the calcium-dependent exchange of cytoplasmic glutamate with mitochondrial aspartate across the mitochondrial inner membrane. May have a function in the urea cycle.

Tissue specificity High levels in liver and low levels in kidney, pancreas, placenta, heart and brain.

Involvement in disease Defects in SLC25A13 are the cause of citrullinemia type 2 (CTLN2) [MIM:603471]. Citrullinemia belongs to the urea cycle disorders. It is an autosomal recessive disease characterized primarily by elevated serum and urine citrulline levels. Ammonia intoxication is another manifestation. CTLN2 is characterized by neuropsychiatric symptoms including abnormal behaviors, loss of memory, seizures and coma. Death can result from brain edema. Onset is sudden and usually between the ages of 20 and 50 years.
Defects in SLC25A13 are the cause of neonatal intrahepatic cholestasis due to citrin deficiency (NICCD) [MIM:605814]. NICCD is a form of citrullinemia type 2 with neonatal onset. NICCD is characterized by suppression of the bile flow, hepatic fibrosis, low birth weight, growth retardation, hypoproteinemia, variable liver dysfunction. NICCD is generally not severe and symptoms disappear by one year of age with an appropriate diet. Years or even decades later, however, some individuals develop the characteristic features of citrullinemia type 2 with neuropsychiatric symptoms.

Sequence similarities Belongs to the mitochondrial carrier family.
Contains 4 EF-hand domains.
Contains 3 Solcar repeats.

Cellular localization Mitochondrion inner membrane.

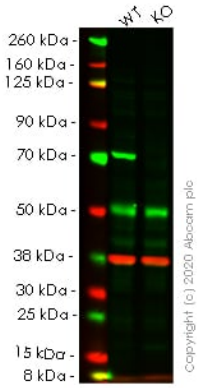
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab258192 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		Use at an assay dependent concentration. Predicted molecular weight: 74 kDa.

Images



Western blot - Human SLC25A13 (Citrin) knockout HeLa cell lysate (ab258192)

Lane 1: Wild-type HeLa cell lysate (20µg)

Lane 2: SLC25A13 knockout HeLa cell lysate (20µg)

Lanes 1- 2: Merged signal (red and green). Green - **ab167166** observed at 70 kDa. Red - loading control **ab8245** observed at 37 kDa.

ab167166 Recombinant Anti-SLC25A13/Citrin antibody [EPR9969(B)] was shown to specifically react with SLC25A13 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab265668** (knockout cell lysate ab258192) was used. Wild-type and SLC25A13 knockout samples were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab167166** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

Sanger Sequencing - Human SLC25A13 knockout HeLa cell lysate (ab258192)

Allele-1: 1 bp deletion in exon3

Sanger Sequencing - Human SLC25A13 knockout HeLa cell lysate (ab258192)

Allele-2: 1 bp insertion in exon3

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