abcam

Product datasheet

Human MTHFD1L knockout HEK-293T cell lysate ab258976

3 Images

Overview

Product name	Human MTHFD1L knockout HEK-293T cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	HEK293T
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 1 bp insertion in exon2 and 8 bp deletion in exon2 and Insertion of the selection cassette in exon2.
Passage number	<20
Knockout validation	Sanger Sequencing
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**.

Properties

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

Components	1 kit
ab261404 - Human MTHFD1L knockout HEK293T cell lysate	1 x 100µg
ab255553 - Human wild-type HEK293T cell lysate	1 x 100µg

Cell type epithelial

STR Analysis Amelogenin X D5S818: 8, 9 D13S317: 12, 14 D7S820: 11 D16S539: 9, 13 vWA: 16, 19 TH01: 7, 9.3 TPOX: 11 CSF1PO: 11, 12

Target

Function May provide the missing metabolic reaction required to link the mitochondria and the cytoplasm in the mammalian model of one-carbon folate metabolism in embryonic an transformed cells complementing thus the enzymatic activities of MTHFD2.

Tissue specificity Detected in most tissues, highest expression found in placenta, thymus and brain. Low expression is found in liver and skeletal muscle. Up-regulated in colon adenocarcinoma.

Pathway One-carbon metabolism; tetrahydrofolate interconversion.

Sequence similarities In the N-terminal section; belongs to the tetrahydrofolate dehydrogenase/cyclohydrolase family. In the C-terminal section; belongs to the formate--tetrahydrofolate ligase family.

Domain This monofunctional enzyme consists of two major domains: an N-terminal inactive methylene-THF dehydrogenase and cyclohydrolase domain and an active larger formyl-THF synthetase C-terminal domain.

Cellular localization Mitochondrion.

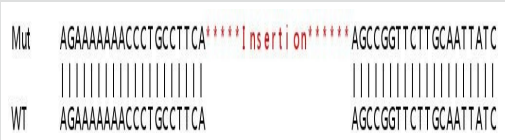
Images

Sanger Sequencing - Human MTHFD1L knockout HEK293T cell lysate (ab258976)

Allele-1: 8 bp deletion in exon2

Sanger Sequencing - Human MTHFD1L knockout HEK293T cell lysate (ab258976)

Allele-2: 1 bp insertion in exon2



Sanger Sequencing - Human MTHFD1L knockout HEK293T cell lysate (ab258976)

Allele-3: Insertion of the selection cassette in exon2

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