Datasheet for ABIN7560216

# MTHFD1 Protein (AA 1-935) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | MTHFD1 |
| Protein Characteristics: | AA 1-935 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This MTHFD1 protein is labelled with His tag. |

## Product Details

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| Purpose: | Custom-made recombinant Mthfd1 Protein expressed in mammalian cells. |
| Sequence: | MAPAGILNGK LVSAQIRDRL KNQVTRMQEQ VPGFTPGLAI LQVGDRDDSN LYINVKLKAA EEIGIKATHI KLPRTSTESE VLKYVISLNE DASVHGFIVQ LPLDSENSIN TEAVINAIAP EKDVDGLTSV SAGKLARGDL NDCFIPCTPK GCLELIKEAG VQIAGRHAVV VGRSKIVGAP MHDLLLWNNA TVTTCHSKTA NLDKEVNKGD ILVVATGQPE MVKGEWIKPG AVVIDCGINY VPDDTKPNGR KVVGDVAYDE AKERASFITP VPGGVGPMTV AMLMQSTVES AQRFLQKFKP GKWTIQYNKL NLKTPVPSDI AISRSCKPKL IGNLAREIGL LTEEVELYGE TKAKVLLSAL DRLKHQPDGK YVVVTGITPT PLGEGKSTTT IGLVQALGAH LRQNVFACVR QPSQGPTFGI KGGAAGGGYS QVIPMEEFNL HLTGDIHAIT AANNLVAAAI DARIFHELTQ TDKALFNRLV PSVNGIRKFS DIQIRRLRRL GIEKTDPTTL TDDEINRFAR LDIDPETITW QRVLDTNDRF LRKITIGQSP TEKGHTRTAQ FDISVASEIM AVLALTSSLE DMRERLGRMV VASSKKGEPI SCEDLGVSGA LTVLMKDAIK PNLMQTLEGT PVFVHAGPFA NIAHGNSSII ADRIALKLVG PEGFVVTEAG FGADIGMEKF FNIKCRYSGL QPHVVVLVAT VRALKMHGGG PTVTAGLPLP KAYTEEDLDL |

## Product Details

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| | VEKGFSNLRK QIENARMFGV PVVVAVNVFK TDTDAELDLV SRLSREHGAF DAVKCTHWAE GGQGALALAQ AVQRASQAPS SFQLLYDLKL SIEDKIRIIA QRIYGADDIE LLPEAQNKAE IYTKQGFGNL PICMAKTHLS LSHNPEQKGV PTGFVLPIRD IRASVGAGFL YPLVGTMSTM PGLPTRPCFY DIDLDPETEQ VNGLF **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.** |
| Specificity: | If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer. |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalian cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. |
| Purity: | > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC) |
| Grade: | custom-made |

## Target Details

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| Target: | MTHFD1 |
| Alternative Name: | Mthfd1 (MTHFD1 Products) |
| Background: | C-1-tetrahydrofolate synthase, cytoplasmic (C1-THF synthase) [Cleaved into: C-1-tetrahydrofolate synthase, cytoplasmic, N-terminally processed] [Includes: Methylenetetrahydrofolate dehydrogenase (EC 1.5.1.5), Methenyltetrahydrofolate cyclohydrolase (EC 3.5.4.9), Formyltetrahydrofolate synthetase (EC 6.3.4.3)],FUNCTION: Trifunctional enzyme that catalyzes the interconversion of three forms of one-carbon- |

## Target Details

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| | substituted tetrahydrofolate: (6R)-5,10-methylene-5,6,7,8-tetrahydrofolate, 5,10-methenyltetrahydrofolate and (6S)-10-formyltetrahydrofolate. These derivatives of tetrahydrofolate are differentially required in nucleotide and amino acid biosynthesis, (6S)-10-formyltetrahydrofolate being required for purine biosynthesis while (6R)-5,10-methylene-5,6,7,8-tetrahydrofolate is used for serine and methionine biosynthesis for instance. {ECO:0000269\|PubMed:15611115}. |
| Molecular Weight: | 101.2 kDa |
| UniProt: | Q922D8 |
| Pathways: | Methionine Biosynthetic Process |

## Application Details

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| Application Notes: | We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |