

Datasheet for ABIN7564497
MTRR Protein (AA 1-696) (His tag)



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Overview

Quantity:	1 mg
Target:	MTRR
Protein Characteristics:	AA 1-696
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MTRR protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Mtrr Protein expressed in mammalian cells.
Sequence:	<p>MRRFLLLYAT QRGQAKAIAE EISEQAVSHG FSADLHCISE SEKYDLKTET GPLVMVSTT GTGDPPDTAR KFVKEIHNKT LPTDYFAHLR YGLLGLGDSE YTYFCNGGKV IDKRLQELGA QRFYDTGHAD DCVGLELVE PWIDGLWAAL TKHFKSLGGQ ENMSDTLSRA SDAPLSTAMK PELLHIQSQV ELLRLEDVGE RDELREQNE TNRGQQGRIE DFDSSLVHSV PPLSQSSLSI PAVPPEYLEV HLQESLGQEE NQASVPSGDP SFQVPISKAI RLTTNDAVKS TLLLELDISK IEFHQPGDS FNVTCPNDR EVEELLQRLQ LADKRAHRVI LKIKTDTKKK GAALPAHVPE GRSLQFILTW CLEIRAVPKK AFLRALAHT SSATEKRRLQ ELCSKQGAAD YNRFIRDASV CLLDLLLLTFP SCQPPLSLLL EHLPKLQPRP YSCASSLRH PDKLHFVFN VEFPPSTTAA SPRKGVCTGW LATLVAPFLQ PNTDVSNADS GDTLAPEIRI SPRATNAFHL PEDPSAPIIM VPGGTGVAPF VGFLQHREKL QEHPDGKFG AMWLFFGCRH KDRDYLFREE LRHFLKTGVL THLKVSFSRD AAPDGEEAPA KYVQDNLQRH SQQVARTLLQ ENGIYVCGD AKNMAKDVND TLIGIISNEA GVDKLEAMKT LATLKQEKRY LQDIWS Sequence without tag. The proposed</p>

Product Details

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:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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

Target: MTRR

Alternative Name: Mtrr ([MTRR Products](#))

Background: Methionine synthase reductase (MSR) (EC 1.16.1.8) (Aquacobalamin reductase) (AqCbl reductase),FUNCTION: Key enzyme in methionine and folate homeostasis responsible for the reactivation of methionine synthase (MTR/MS) activity by catalyzing the reductive methylation of MTR-bound cob(II)alamin. Cobalamin (vitamin B12) forms a complex with MTR to serve as an intermediary in methyl transfer reactions that cycles between MTR-bound methylcob(III)alamin and MTR bound-cob(I)alamin forms, and occasional oxidative escape of the cob(I)alamin intermediate during the catalytic cycle leads to the inactive cob(II)alamin species. The processing of cobalamin in the cytosol occurs in a multiprotein complex

Target Details

composed of at least MMACHC, MMADHC, MTRR and MTR which may contribute to shuttle safely and efficiently cobalamin towards MTR in order to produce methionine (By similarity). Also necessary for the utilization of methyl groups from the folate cycle, thereby affecting transgenerational epigenetic inheritance (PubMed:24074862). Also acts as a molecular chaperone for methionine synthase by stabilizing apoMTR and incorporating methylcob(III)alamin into apoMTR to form the holoenzyme. Also serves as an aquacob(III)alamin reductase by reducing aquacob(III)alamin to cob(II)alamin, this reduction leads to stimulation of the conversion of apoMTR and aquacob(III)alamin to MTR holoenzyme (By similarity). {ECO:0000250|UniProtKB:Q9UBK8, ECO:0000269|PubMed:24074862}.

Molecular Weight: 77.5 kDa

UniProt: [Q8C1A3](#)

Pathways: [Methionine Biosynthetic Process](#)

Application Details

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

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