

Recombinant mouse Adenosylhomocysteinase/AHCY protein

Catalog Number: ATGP3650

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-432aa

UniProt No.

P50247

NCBI Accession No.

NP_057870

Alternative Names

S-adenosylhomocysteine hydrolase, AdoHcyase, CUBP, Liver copper-binding protein, S-adenosyl-L-homocysteine hydrolase, SAHH

PRODUCT SPECIFICATION

Molecular Weight

50.2 kDa (456aa) confirmed by MALDI-TOF

Concentration

0.25mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 40% glycerol, 0.2M NaCl, 1mM DTT

Purity

> 90% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Ahcy, also known as Adenosylhomocysteinase, is an enzyme that catalyzes the reversible hydrolysis of S-adenosylhomocysteine (AdoHcy) to adenosine (Ado) and L-homocysteine (Hcy). AdoHcy hydrolysis is a reversible reaction with an equilibrium favoring AdoHcy formation, but hydrolysis prevails under physiological conditions due to the rapid removal of adenosine and homocysteine. Thus, AHCY's activity in mammals is directly related to homocysteine level, an independent risk factor for vascular disease. It also functions as a regulator of biological

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transmethylation by controlling the concentration of AdoHcy, a potent competitive inhibitor of all S-adenosyl-L-methionine methyltransferases. Recombinant mouse Ahcy, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

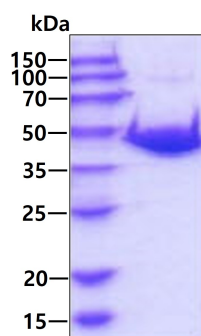
<MGSSHHHHHH SSGLVPRGSH MGS>MSDKLP YKVADIGLAA WGRKALDIAE NEMPGLMRMR EMYSASKPLK
GARIAGCLHM TVETAVLIET LVALGAEVRW SSCNIFSTQD HAAAAIAKAG IPVFAWKGET DEEYLWCIEQ TLHFKDGPLN
MILDDGGDLT NLIHTKYPQL LSGIRGISEE TTTGVHNLYK MMSNGILKVP AINVNDSVTK SKFDNLYGCR ESLIDGIKRA
TDVMIAGKVA VVAGYGDVGK GCAQALRGFG ARVIITEIDP INALQAAMEG YEVTMDEAC KEGNIFVTTT GCVDIILGRH
FEQMKDDAIV CNIGHFDVEI DVKWLNENAV EKVNIKPQVD RYWLKNGRRI ILLAEGRLVN LGCAMGHPSF VMSNSFTNQV
MAQIELWTHP DKYPVGVHFL PKKLDEAVAE AHLGKLVNKL TKLTEKQAQY LGMPINGPFK PDHYRY

General References

Vugrek O., et al. (2009) Hum Mutat. 30(4): E555-65.
Park SJ. et al., (2015) Am J Cancer Res. 5(7):2127-2138

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.