

# Recombinant human Adenosylhomocysteinease/AHCY protein

Catalog Number: ATGP3578

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

1-432aa

### UniProt No.

P23526

### NCBI Accession No.

NP\_000678

### Alternative Names

Adenosylhomocysteinase isoform 1, AHCY, AdoHcyase, SAHH, S-adenosylhomocysteine hydrolase

## PRODUCT SPECIFICATION

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### Molecular Weight

48.8 kDa (441aa)

### Concentration

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

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### 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

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### Description

AHCY, also known as adenosylhomocysteinase isoform 1, 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, AHCYs activity in mammals is directly

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related to homocysteine level, an independent risk factor for vascular disease. It also functions as a regulator of biological transmethylation by controlling the concentration of AdoHcy, a potent competitive inhibitor of all S-adenosyl-L-methionine methyltransferases. Recombinant human AHCY protein, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

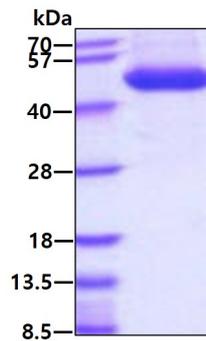
<ADL>MSDKLPY KVADIGLAAW GRKALDIAEN EMPGLMRMRE RYSASKPLKG ARIAGCLHMT VETAVLIETL  
VTLGAEVQWS SCNIFSTQDH AAAAIAKAGI PVYAWKGETD EEYLWCIEQT LYFKDGPLNM ILDDGGDLTN LIHTKYPQLL  
PGIRGISEET TTGVHNLYKM MANGILKVPA INVNDSVTKS KFDNLYGCRE SLIDGIKRAF DVMIAGKVAV VAGYGDVVGK  
CAQALRGFGA RVIITEIDPI NALQAAMEGY EVTTMDEACQ EGNIFVTTTG CIDIILGRHF EQMKDDAIVC NIGHFDVEID  
VKWLNENAVE KVNIKPQVDR YRLKNGRRII LLAEGRLVNL GCAMGHPSFV MSNSFTNQVM AQIELWTHPD KYPVGVHFLP  
KKLDEAVAEA HLGKLVNKLK KLTEKQAQYL GMSCDGPFPK DHYRY<HHHHH H>

## General References

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

## DATA

### SDS-PAGE



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