

**APG465Hu01 100µg**  
**Active Adenosylhomocysteinase (AHCY)**  
**Organism Species: *Homo sapiens* (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

---

---

1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Ser2~Tyr432

**Tags:** N-terminal His-tag

**Purity:** >95%

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

**Applications:** Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 5.9

**Predicted Molecular Mass:** 51.3kDa

**Accurate Molecular Mass:** 48kDa as determined by SDS-PAGE reducing conditions.

## **[ USAGE ]**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **[ STORAGE AND STABILITY ]**

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCE ]**

```
SDKLPYKVA DIGLAANGRK ALDIAENEMP GLMRMRERYS ASKPLKGARI
AGCLHMTVET AVLIETLVTL GAEVQWSSCN IFSTQDHAHA AIKAGIPVY
AWKGETDEEY LWCIEQTLYF KDGPLNMILD DGGDLTNLIH TKYPQLLPGI
RGISEETTTG VHNLYKMMAN GILKVPAINV NDSVTKSKFD NLYGCRESLI
DGIKRATDVM IAGKVAVVAG YGDVVGKCAQ ALRGFGARVI ITEIDPINAL
QAAMEGYEVT TMDEACQEGN IFVTTTGCID IILGRHFQEM KDDAIVCNIG
HFDVEIDVKW LNENAVEKVN IKPQVDYRL KNGRRIILLA EGRLVNLGCA
MGHPSFVMSN SFTNQVMAQI ELWTHPKYP VGVHFLPKKL DEAVAEHLG
KLNVKLTKLT EKQAQYLGMS CDGPFKPDHY RY
```

## **[ ACTIVITY ]**

Adenosylhomocysteinase (S-adenosylhomocysteine synthase, S-adenosylhomocysteine hydrolase, adenosylhomocysteine hydrolase, S-adenosylhomocysteinase, SAHase, AdoHcyase, AHCY) is an enzyme that converts S-adenosylhomocysteine to homocysteine and adenosine. The enzyme contains one tightly bound NAD<sup>+</sup> per subunit. Besides, Major Histocompatibility Complex Class I B (MHCB) has been identified as an interactor of AHCY, thus a binding ELISA assay was conducted to detect the interaction of recombinant human AHCY and recombinant human MHCB. Briefly, AHCY were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to MHCB-coated microtiter wells and incubated for 2h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-AHCY pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells

were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of AHCY and MHCb was shown in Figure 1, and this effect was in a dose dependent manner.

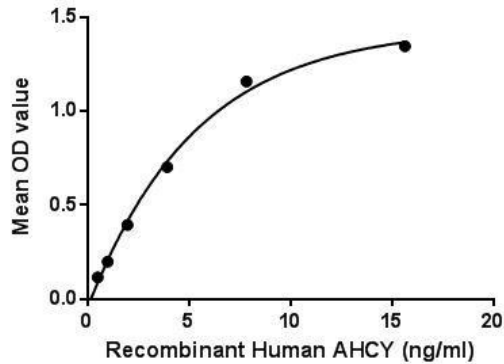


Figure 1. The binding activity of AHCY with MHCb.

## [ IDENTIFICATION ]

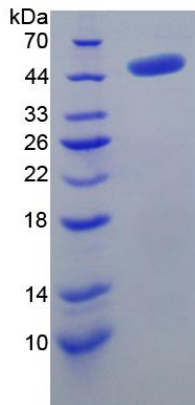
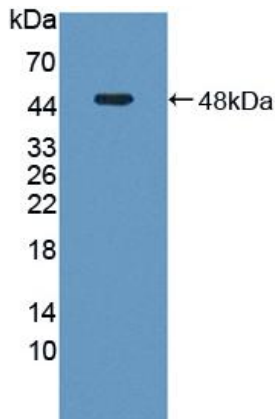


Figure 2. SDS-PAGE

Sample: Active recombinant AHCY, Human



**Figure 3. Western Blot**

**Sample: Recombinant AHCY, Human;**

**Antibody: Rabbit Anti-Human AHCY Ab (PAG465Hu01)**

### **[ IMPORTANT NOTE ]**

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.