

Product datasheet

Adenosylhomocysteinase (AHCY) Inhibitor Assay Kit (Fluorometric) ab204694

[1 References](#) [1 Image](#)

Overview

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|-------------------------|--|
| Product name | Adenosylhomocysteinase (AHCY) Inhibitor Assay Kit (Fluorometric) |
| Detection method | Fluorescent |
| Sample type | Inhibitor compounds |
| Assay type | Enzyme activity |
| Product overview | Adenosylhomocysteinase (AHCY) Inhibitor Screening Kit (Fluorometric) (ab204694) is a simple assay to study, screen or characterize potential inhibitors of AHCY. In this assay, the homocysteine generated from the breakdown of S-Adenosyl Homocysteine (SAH) is measured using a Thiol Detecting Reagent which results in enhanced fluorescence that can be measured at Ex/Em = 392/482 nm. The AHCY reaction is reversible, and therefore Adenosine Deaminase is included in the reaction to ensure that the reaction proceeds towards hydrolysis of SAH. In the presence of AHCY inhibitor, there is a decrease in fluorescence of the Thiol Detecting Reagent. |
| Notes | <p>This product is manufactured by BioVision, an Abcam company and was previously called K326 AHCY Inhibitor Screening Kit (Fluorometric). K326-100 is the same size as the 100 test size of ab204694.</p> <p>Adenosylhomocysteinase (AHCY) (EC 3.3.1.1) or S-adenosylhomocysteine hydrolase (SAHH); is an enzyme that catalyzes the reversible hydrolysis of S-Adenosyl Homocysteine (SAH) to adenosine and homocysteine. Inhibition of AHCY results in the accumulation of SAH, a product inhibitor of S-adenosyl methionine (SAM)-dependent methyltransferases. AHCY is an important target as an antiviral and anticancer drug. Several characterized SAH inhibitors inhibit some DNA viruses (e.g. Pox viruses) and some negative stranded RNA viruses (e.g.: Marburg virus, Ebola virus & rabies).</p> |
| Platform | Microplate reader |

Properties

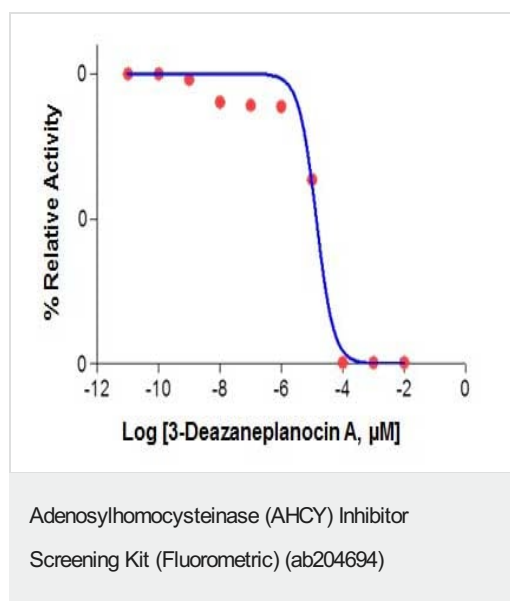
Storage instructions Store at -20°C. Please refer to protocols.

| Components | 100 tests |
|---------------------------------------|-----------|
| 3-Deazaneplanocin A (10 µM) (in DMSO) | 1 x 10µl |
| | |

| Components | 100 tests |
|-----------------------------------|-----------|
| Adenosine Deaminase | 1 vial |
| AHCY Assay Buffer | 1 x 25ml |
| AHCY Enzyme | 1 vial |
| AHCY Reconstitution Buffer | 1 x 250µl |
| AHCY Substrate (in DMSO) | 1 x 100µl |
| Thiol Detecting Reagent (in DMSO) | 1 x 200µl |

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|-------------------------------|---|
| Function | Adenosylhomocysteine is a competitive inhibitor of S-adenosyl-L-methionine-dependent methyl transferase reactions; therefore adenosylhomocysteinase may play a key role in the control of methylations via regulation of the intracellular concentration of adenosylhomocysteine. |
| Pathway | Amino-acid biosynthesis; L-homocysteine biosynthesis; L-homocysteine from S-adenosyl-L-homocysteine: step 1/1. |
| Involvement in disease | Defects in AHCY are the cause of hypermethioninemia with S-adenosylhomocysteine hydrolase deficiency (HMAHCHD) [MIM:613752]. A metabolic disorder characterized by hypermethioninemia associated with failure to thrive, mental and motor retardation, facial dysmorphism with abnormal hair and teeth, and myocardiopathy. |
| Sequence similarities | Belongs to the adenosylhomocysteinase family. |
| Cellular localization | Cytoplasm. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. |

Images



Inhibition of Adenosylhomocysteinase (AHCY) Enzyme activity by 3-Deazaneplanocin A. IC₅₀ of 3-Deazaneplanocin A was determined to be 0.137 nM.

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