

AHCY Inhibitor Screening Kit

Product Information

Cat.No.

Kit-2151

Product Overview

In the AHCY Inhibitor Screening kit the homocysteine generated from the breakdown of SAH is measured using a Thiol Detecting Reagent resulting in enhanced fluorescence which is measured at Ex/Em = 392/482 nm. The AHCY reaction is reversible and hence 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.

Size

100 assays

Description

Adenosyl homocysteinase (AHCY) (EC 3.3.1.1) or S-adenosyl homocysteine 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).

Applications

Screening/characterizing/studying AHCY inhibitors

Storage

Store kit at -20°C, protected from light. Avoid repeated freeze/thaw for all non-buffer components. Briefly centrifuge small vials before opening. Read entire protocol before performing the assay. AHCY Assay Buffer: Store at 4°C or -20°C. Warm to 37°C before use. AHCY Enzyme: Reconstitute with 220 µl AHCY Reconstitution Buffer, keep on ice, and mix gently by pipetting. Aliquot and store at -80°C. Avoid repeated freeze/thaw. After opening, use within two months. Adenosine Deaminase: Reconstitute with 110 µl deionized water. Avoid repeated

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freeze/thaw. Aliquot and store at -80°C. After opening, use within two months. 3-Deazaneplanocin A (10 µM): Store at -20°C. After opening, use within two months. AHCY Substrate: Store at -20°C. Thaw and mix gently by pipetting before use. After opening, use within two months. Thiol detecting Reagent: Store at -20°C. Thaw before use. After opening, use within two months.

Kit Components

AHCY Assay Buffer: 25 ml AHCY Reconstitution Buffer: 0.25 ml AHCY Enzyme: 1 Vial Adenosine Deaminase: 1 Vial 3-Deazaneplanocin A (10 µM) (in DMSO): 10 µl AHCY Substrate (in DMSO): 100 µl Thiol Detecting Reagent (in DMSO): 200 µl

Detection method Fluorescence (Ex/Em = 392/482 nm)

Features & Benefits

• Simple and reliable test to screen AHCY inhibitors • High-throughput suitable • Includes Inhibitor Control (3-Deazaneplanocin A)
