

Cystathionine β Synthase Activity Assay Kit (Fluorometric)

Cat. No. Kit-1113 Lot. No. (See product label)

SPECIFICATION

Product Overview

Description

Cystathionine β Synthase (EC 4.2.1.22, C β S) is a PLP-dependent enzyme that catalyzes the formation of H₂S and cystathionine when using cysteine and homocysteine as substrates. Known for its role in human sulfur metabolism, mutations in the gene encoding C β S can result in high concentrations of homocysteine in plasma. Elevated circulating concentrations of homocysteine result in genetic disorders including Homocystinuria and Down syndrome. Specifically, Homocystinuria is an autosomal recessive disease with clinical manifestations including mental retardation, thromboembolism and connective tissue defects. Hydrogen sulfide, C β S product, is an important gaseous mediator, like nitric oxide, that has significant effects on the immunological, neurological, cardiovascular and pulmonary systems of mammals. Cystathionine β Synthase Assay Kit utilizes cysteine and homocysteine as substrates to produce H₂S. Hydrogen sulfide reacts with the azido-functional group of the fluorescent probe yielding a fluorescent amino group (Ex/Em = 368/460 nm). The assay is highly sensitive, has a simple easy-to-follow protocol, and can detect as low as 1.45 mU of C β S activity.

Applications

Rapid assessment of native/recombinant C β S and C β S activity in mammalian samples

Storage

-20°C

Shipping

Gel Pack

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Size	100 assays
Kit Components	CβS Assay Buffer; CβS Probe (in DMSO); CβS Substrate; Cofactor 1; Cofactor 2; Reducing Agent; AMC Standard (in DMSO, 1 mM); CβS Positive Control
Target Species	Eukaryotes
Detection method	Fluorescence(Ex/Em 368/460 nm)
Features & Benefits	Simple, convenient, highly sensitive; Fluorescent assay enables easy determination of CβS activity in a variety of biological samples; Kit includes a stable CβS positive control

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