CREATIVE BIOMART®
Assay Kit

Cystathionine ? Synthase Activity Assay Kit (Fluorometric)

Product Information

Cat

Kit-1113

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Description

Cystathionine β Synthase (EC 4.2.1.22, CβS) 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 CβS can result in high concentrations of homocysteine in plasma. Elevated circulating concentrations of homocysteine result in genetic disorders including Homocysteinuria and Down syndrome. Specifically, Homocysteinuria is an autosomal recessive disease with clinical manifestations including mental retardation, thromboembolism and connective tissue defects. Hydrogen sulfide, CβS product, is an important gaseous mediator, like nitric oxide, that has significant effects on the immunological, neurological, cardiovascular and pulmonary systems ofmammals. Cystathione 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 CβS activity.

Applications

Rapid assessment of native/recombinant CβSand CβS activity in mammalian samples

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

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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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