CREATIVE BIOMART®
Assay Kit

Alkaline Sphingomyelinase Activity Assay Kit (Colorimetric)

Product Information

Cat

Kit-2193

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Product Overview

Sphingomyelinase (SMase, E.C. 3.1.4.12) cleaves sphingomyelin to produce phosphocholine and ceramide. Both of these molecules can act as second messengers and regulate downstream events including apoptosis, cell proliferation, and sterol homeostasis. The sphingomyelinase family of enzymes includes acid sphingomyelinase, found in the lysosome and also secreted, neutral sphingomyelinase, which is enriched in the brain, and alkaline sphingomyelinase (AlkSMase), which acts in the intestinal tract. Unlike the neutral variety (nSMase), AlkSMase shows optimal activity at higher pH and does not require Mg2+ for enzymatic activity. AlkSMase, also referred to as NPP7, because of its homology to the Nucleotide Pyrophosphatase/Phosphodiesterase family of enzymes, has been implicated in prevention of tumor formation. Its activity is decreased in some intestinal cancers, as wells as instances of chronic colitis.Alkaline Sphingomyelinase may also play a role in cholesterol absorption. Alkaline Sphingomyelinse Colorimetric Assay Kit provides a simple, high throughput adaptable means to identify and quantify alkaline sphingomyelinase activity in a variety of samples without influence from neutral or acid sphingomyelinase. Upon incubation with substrate, the hydrolysis produces an intermediate that reacts with the probe, generating a colorimetric signal. The assay can detect as low as 0.5 μU of alkaline sphingomyelinase activity.

Applications

Sensitive assays for measuring IDH activity in various biological samples and the kit is also suitable for high throughput analyses.

Storage

-20°C

Shipping

Gel Pack

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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Size

100 assays

Kit Components

AlkSMase Assay Buffer; AlkSMase Developer Buffer; AlkSMase Probe (DMSO); AlkSMase Substrate (Lyophilized); AlkSMase Enzyme Mix I (Lyophilized); AlkSMase Enzyme Mix II (Lyophilized); Choline Standard (Lyophilized);Alk SMase Positive Control (Lyophilized)

Detection method Absorbance (OD 570 nm)

Features & Benefits

Simple, rapid & convenient;
The assay can detect sphingomyleinase activity as low as 0.5 in a variety of samples

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