

Sphingomyelinase Activity Colorimetric Assay Kit

Cat. No. Kit-2278 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Sphingomyelinase (SMase) cleaves sphingomyelin to produce phosphocholine and ceramide. The activation of SMase leads to increased production of ceramide, which acts as a lipid second messenger that induces a variety of cell regulatory phenomena such as apoptosis, cell differentiation, cell proliferation, and sterol homeostasis. There are five distinct types of SMases. SMase Activity Assay Kit provides a simple and sensitive method for measuring neutral-SMase enzymatic activity using colorimetry (OD 570 nm). Neutral sphingomyelinase (N-SMase) is a Mg²⁺ sensitive enzyme that can be activated by a host of physiologically relevant and structurally diverse molecules. In this assay, SMase converts sphingomyelin substrate to phosphocholine and ceramide, which is then further utilized to produce an intermediate that reacts with a highly specific probe to generate color. This high-throughput adaptable assay kit can detect sphingomyelinase activity as low as 1.25 mU/ml (~5 µU/mg tissue/cells) in a variety of samples.

Applications

Measurement of SMase activity in various tissues/cells extracts
Screening of SMase inhibitors.

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

Kit Components

SMase Assay Buffer; SMase Probe (DMSO); SMase Substrate (Lyophilized); SMase

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Enzyme Mix I (Lyophilized); SMase Enzyme Mix II (Lyophilized); Choline Standard (Lyophilized); SMase Positive Control (Lyophilized); SMase Extraction Detergent

Detection method Absorbance (OD 570 nm)

Features & Benefits Simple, rapid & convenient;
The assay can detect sphingomyelinase activity as low as 1.25 mU/ml (~5 µU/mg tissue/cells) in a variety of samples

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