

Sphingomyelinase Colorimetric Assay Kit

Cat. No. Kit-0790 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Sphingomyelinase Assay Kit (Colorimetric) provides a sensitive method for detecting neutral SMase activity or screening its inhibitors. The kit uses our proprietary AbBlue Indicator as a colorimetric probe to indirectly quantify the phosphocholine produced from the hydrolysis of sphingomyelin (SM) by sphingomyelinase (SMase). It can be used for measuring the SMase activity in blood, cell extracts or other solutions. The absorbance of light at 655 nm is proportional to the formation of phosphocholine, therefore to the SMase activity. The kit is an optimized "mix and read" assay that is compatible with HTS liquid handling instruments.

Description

Sphingomyelinase (SMase) is an enzyme that is responsible for cleaving sphingomyelin (SM) to phosphocholine and ceramide. Activation of SMases in cells plays an important role in the cellular responses. Five types of sphingomyelinase (SMase) have been identified based on their cation dependence and pH optima of action. They are lysosomal acid SMase, secreted zinc-dependent acid SMase, magnesium-dependent neutral SMase, magnesium-independent neutral SMase, and alkaline SMase. Among the five types, the lysosomal acidic SMase and the magnesium-dependent neutral SMase are considered major candidates for the production of ceramide in the cellular response to stress.

Applications

Functional Studies

Target Species

Reacts with: Human Predicted to work with: A wide range of mammals

Storage

Keep at -20°C. Avoid exposure to light.

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Kit Components	Components 200 tests AbBlue Indicator 1 vial Assay Buffer 1 x 20ml DMSO 1 x 300µl Enzyme Mix 2 vials SMase Reaction Buffer 1 x 10ml Sphingomyelin 1 x 100µl Sphingomyelinase Standard 1 x 0.2 unit
Compatible Sample Types	Cell culture extracts, Whole Blood
Sensitivity	0.08 mU/ml

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