



Acidic Sphingomyelinase Fluorimetric Assay Kit

Product Information

Cat.No.

Kit-0041

Product Overview

Acidic Sphingomyelinase Assay Kit (Fluorimetric) provides one of the most sensitive methods for detecting acidic SMase activity or screening its inhibitors. The kit uses AbRed as a fluorogenic probe to indirectly quantify the phosphocholine produced from the hydrolysis of sphingomyelin (SM) by sphingomyelinase (SMase). The fluorescence intensity of AbRed is proportional to the formation of phosphocholine, therefore to the SMase activity. It can be used for measuring the SMase activity in blood, cell extracts or other solutions. The kit is an optimized "mix and read" assay which is compatible with HTS liquid handling instruments.

Size

200 tests

Description

Sphingomyelinase (SMase) is an enzyme that is responsible for cleaving sphingomyelin (SM) to phosphocholine and ceramide. Activation of SMase plays an important role in the cellular responses such as regulation of cell growth, cell differentiation, cell cycle arrest and programmed cell death. 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 of sphingomyelinase, lysosomal acidic SMase and magnesium-dependent neutral SMase are considered to be the major factors for the production of ceramide in cellular stress responses.

Applications

Functional Studies more details.

Target Species

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



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Storage

Store at -20°C.

Kit Components

Components: 200 tests; AbRed Indicator: 1 vial; Assay Buffer: 1 x 10ml; DMSO: 1 x 200µl; Enzyme Mix: 2 vials; SMase Reaction Buffer: 1 x 10ml; Sphingomyelin: 1 x 100µl

Compatible Sample Types

Cell culture extracts, Whole Blood

Sensitivity

1 U/ml