Creative Enzymes®

Native Bacillus cereus Sphingomyelinase

Cat. No. NATE-0672

Lot. No. (See product label)

Introduction

Description Sphingomyelin phosphodiesterase is a hydrolase enzyme that is involved in sphingolipid metabolism reactions. SMase is a member of the DNase I superfamily of enzymes and is responsible for breaking sphingomyelin (SM) down into phosphocholine and ceramide. The activation of SMase has been suggested as a major route for the production of ceramide in response to cellular stresses.

Applications Sphingomyelinase has been used in a study to assess the interaction of actin with the HIV-1 accessory protein Nef. Sphingomyelinase has also been used in a study to investigate X-ray scattering as a quality-control tool for liposomal drug-delivery systems.

Synonyms Sphingomyelin phosphodiesterase; EC 3.1.4.12; neutral sphingomyelinase; 9031-54-3; sphingomyelin cholinephosphohydrolase; sphingomyelinase; SMase

Product Information

Source Bacillus cereus

Form Type I, buffered aqueous glycerol solution, Solution in 50% glycerol containing 50 mM Tris-HCl, pH 7.5; Type II, Lyophilized powder containing potassium phosphate buffer salts and stabilizer.

EC Number EC 3.1.4.12

CAS No. 9031-54-3

Activity > 100 units/mg protein

Unit Definition One unit will hydrolyze 1.0 µmole of TNPAL-sphingomyelin per min at pH 7.4 at 37°C.

Storage and Shipping Information

Storage 2-8°C