

## 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  $\mu$ mole of TNPAL-sphingomyelin per min at pH 7.4 at 37°C.

### Storage and Shipping Information

**Storage** 2-8°C