PRODUCT DATA SHEET

Sphingomyelin

**Catalog No:** 1328  
**Common Name:** SPM; Ceramide-1-phosphorylcholine  
**Source:** natural, procine RBCs  
**Solubility:** chloroform, ethanol  
**CAS No:** 85187-10-6

**Molecular Formula:** C_{47}H_{95}N_{2}O_{6}P  
**Molecular Weight:** 815 (lignoceroyl)  
**Storage:** -20°C  
**Purity:** TLC > 98%; identity confirmed by MS  
**TLC System:** chloroform/methanol/DI water (65:30:4 by vol.)

**Appearance:** solid

**Application Notes:**
Sphingomyelin is found in mammalian cell membranes, especially in the membranes of the myelin sheath. It is the most abundant sphingolipid in mammals and is thought to be found mostly in the exoplasmic leaflet of the membrane although there is also evidence of a sphingomyelin pool in the inner leaflet of the membrane. It is involved in signal transduction and apoptosis. An improper ratio of sphingomyelin to ceramide has been shown to be a factor in Niemann-Pick disease and neonatal respiratory distress syndrome. However, the ratio of sphingomyelin to ceramide is different for different cell types. Sphingomyelin is an important amphiphilic component when plasma lipoprotein pools expand in response to large lipid loads or metabolic abnormalities.

**Selected References:**

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