

Ceramide Phosphoethanolamines (bovine)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Appearance: no data available

Storage: keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Ceramide phosphoethanolamine (CPE) is an analog of sphingomyelin that contains ethanolamine rather than choline as the head group. It is the principal membrane phospholipid in invertebrates such as <i>Drosophila</i> , which lacks sphingomyelin. It is only produced in small amounts in mammalian cells, accounting for approximately 0.02 mol% of total phospholipids in mouse testis and brain. In <i>Drosophila</i> , CPE is biosynthesized by CPE synthase from ceramide and cytidine diphosphate-ethanolamine in the Golgi lumen. In mammals, it is biosynthesized by sphingomyelin synthase 2 (SMS2) in the plasma membrane and by sphingomyelin synthase-related protein (SMSr) in the endoplasmic reticulum (ER). In <i>Drosophila</i> , CPE has a role in glial ensheathment of axons. Disrupting CPE synthesis by depleting SMSr in vitro in mammalian cells leads to an accumulation of ER ceramides, which are then mislocalized to the mitochondria, inducing apoptosis. However, ceramide levels are not altered in transgenic mice lacking SMSr catalytic activity. CPEs (bovine) is a mixture of CPEs with variable N-acyl chain lengths.
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Solubility Information

Solubility	Chloroform:Methanol:H ₂ O (2:1:0.1): Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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