

Catalog # 10-1615 C22 Ceramide CAS# 369501-30-4 Lot # \$103186



A long-chain ceramide containing behenic acid. Mitochondrial-to-cytosolic stress response (MCSR) is a recently identified stress response which can be induced by increased synthesis of fatty acids. C22-ceramide is an endogenous signaling lipid which specifically inhibits MCSR with no effect on unfolded protein responses within the mitochondria.<sup>1</sup> Hearts overexpressing Acyl CoA synthetase1 contain elevated levels of C22-ceramide.<sup>2</sup>

- 1) Kim et al. (2016), Lipid Biosynthesis Coordinates a Mitochondrial-to-Cytosolic Stress Response; Cell, 166 1539
- 2) Goldenberg et al. (2016), Acyl CoA synthase-1 links facilitated long chain fatty acid uptake to intracellular metabolic trafficking differently in hearts of male vs. female mice; J. Mol. Cell. Cardiol., **94** 1

## PHYSICAL DATA

Molecular Weight:	622.06
Molecular Formula:	C <sub>40</sub> H <sub>79</sub> NO <sub>3</sub>
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 12 mg/ml with warming) or Ethanol (up to 10 mg/ml with warming)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in
	DMSO or ethanol may be stored at -20°C for up to 3 months.

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