

Certificate of Analysis

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Product Name: FR 236924

Catalog No.: 3091

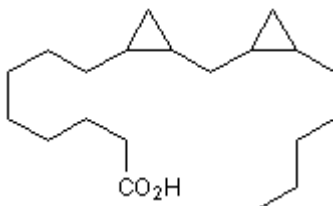
Batch No.: 1

CAS Number: 28399-31-7

IUPAC Name: 2-[(2-Pentylcyclopropyl)methyl]cyclopropaneoctanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₃₆O₂
Batch Molecular Weight: 308.5
Physical Appearance: Colourless oil
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.35 (Ethyl acetate:Petroleum ether [1:4])
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Information

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Description:

Selective PKC ϵ activator that displays > 7-fold selectivity over other PKC isozymes. Stimulates glutamate release via presynaptic $\alpha 7$ nicotinic receptors on glutamatergic terminals in vitro and enhances cognition in vivo. Brain penetrant.

Physical and Chemical Properties:

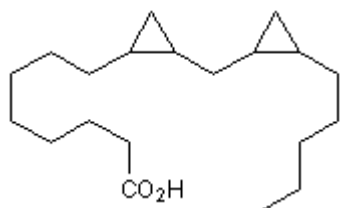
Batch Molecular Formula: C₂₀H₃₆O₂

Batch Molecular Weight: 308.5

Physical Appearance: Colourless oil

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Tanaka and Nishizaki (2003) The newly synthesized linoleic acid derivative FR236924 induces a long lasting facilitation of hippocampal neurotransmission by targeting nicotinic acetylcholine receptors. *Bioorg.Med.Chem.Letts.* **13** 1037.

Yamamoto et al (2005) The linoleic acid derivative FR236924 facilitates hippocampal synaptic transmission by enhancing activity of presynaptic $\alpha 7$ acetylcholine receptors on the glutamatergic terminals. *Neuroscience* **130** 207. PMID: 15561436.

Kanno et al (2006) The linoleic acid derivative DCP-LA selectively activates PKC- ϵ , possibly binding to the phosphatidylserine binding site. *J.Lipid Res.* **47** 1146. PMID: 16520488.

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