Certificate of Analysis

Product Name: **Ionomycin calcium salt** **Catalog No.: 1704** **Batch No.: 16**

CAS Number: 56092-82-1

IUPAC Name: (4*R*,6*S*,8*S*,10*Z*,12*R*,14*R*,16*E*,18*R*,19*R*,20*S*,21*S*)-11,19,21-Trihydroxy-4,6,8,12,14,18,20-heptamethyl-22-[(2*S*,2'*R*,5*S*,5'*S*)-octahydro-5'-[(1*R*)-1-hydroxyethyl]-2,5'-dimethyl[2,2'-bifuran]-5-yl]-9-oxo-10,16-docosadienoic acid calcium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{41}H_{70}O_9.Ca$

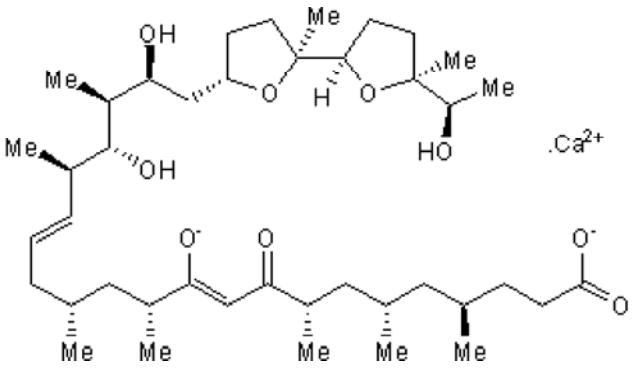
Batch Molecular Weight: 747.08

Physical Appearance: White solid

Solubility: ethanol to 100 mM
DMSO to 25 mM with gentle warming

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.9% purity

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Description:

Ionomycin calcium salt is a calcium ionophore; more specific than A23187. Free Acid also available.

Physical and Chemical Properties:

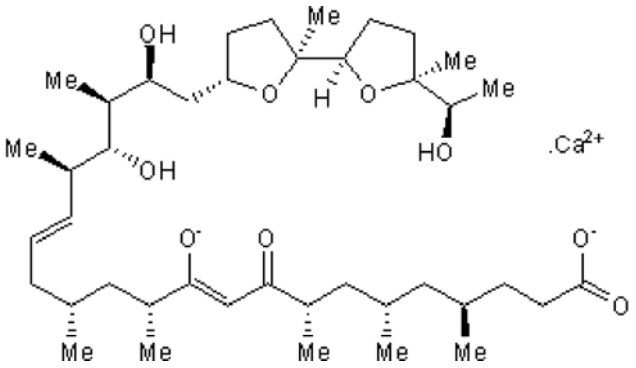
Batch Molecular Formula: $C_{41}H_{70}O_9.Ca$

Batch Molecular Weight: 747.08

Physical Appearance: White solid

Minimum Purity: ≥98%

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:

ethanol to 100 mM
DMSO to 25 mM with gentle warming

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Elzi *et al* (2001) Ionomycin causes activation of p38 and p42/44 mitogen-activated protein kinases in human neutrophils. Am.J.Physiol.Cell Physiol. ***281*** C350. PMID: 11401859.

Kaufmann *et al* (1980) Cation transport and specificity of ionomycin. Comparison with ionophore A23187 in rat liver mitochondria. J.Biol.Chem. ***255*** 2735. PMID: 6766939.

Liu and Hermann (1978) Characterization of ionomycin as a calcium ionophore. J.Biol.Chem. ***253*** 5892. PMID: 28319.