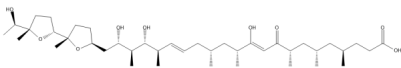


Certificate of Analysis

Catalog Number	BP22519
Product Name	Ionomycin

Physical and Chemical Properties

CAS No.	56092-81-0
Chemical Formula	C ₄₁ H ₇₂ O ₉
Molecular Weight	709.01
Solubility	DMSO: 100 mg/mL (141.04 mM, Need ultrasonic)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	<p>Ionomycin is a potent, selective calcium ionophore and an antibiotic produced by <i>Streptomyces conglobatus</i>. Ionomycin is highly specific for divalent cations (Ca>Mg>Sr=Ba). Ionomycin promotes apoptosis. Ionomycin also induces the activation of protein kinase C (PKC).</p>
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In vitro	<p>Ionomycin is a Calcium ionophore and an antibiotic produced by <i>Streptomyces conglobatus</i>. Addition of 2 μM Ionomycin to LCLC 103H cells causes an instantaneous increase in intracellular Ca^{2+} concentration from 50 to 180 nM. DNA and protein analysis in Ionomycin-treated cultures revealed DNA fragmentation and PARP cleavage to an 85-kDa fragment typical of caspase-mediated apoptosis. Necrosis could be detected in ~1-5% of the Ionomycin treated cells. Caspase activation in whole cells was followed by monitoring the increase in activity against Ac-DEVD-amc following Ionomycin treatment. Ionomycin-mediated cleavage and exosome release. Following Ionomycin exposure, medium conditioned by SKOV3ip cells had increased amounts of exosomes containing the L1-32 cleavage fragment. Ionomycin also phosphorylate p38 MAPK by Ca^{2+} influx through SOCE, leading to suppression of TNF-α-induced NF-κB phosphorylation.</p>
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Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	<p>Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.</p>

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