LKT Laboratories, Inc.

Oligomycin B

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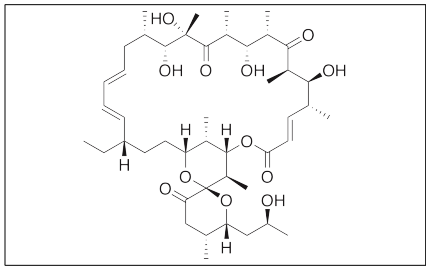
Product Information

Product ID O4532
CAS No. 11050-94-5
Chemical Name

Synonym

Formula $C_{45}H_{72}O_{12}$
Formula Wt. 805.05
Melting Point 156-164°C
Purity ≥97%, TLC, HPLC
Solubility Soluble in DMSO, ethanol, acetone.



Bulk quanitites available upon request

Product ID	Size
O4532	1 mg
O4532	5 mg

Store Temp 4°C
Ship Temp Ambient

Description Oligomycin B is a macrolide antibiotic initially produced by several species of *Streptomyces*. Oligomycin B inhibits mitochondrial F1F0 ATP synthase, binding the F0 subunit, inhibiting ATP synthesis; it displays antibacterial efficacy against a variety of bacteria. In myocardial tissue, oligomycin B decreases ATP concentrations and contractile function under normoxic conditions, but instead decreases the ATP depletion rate during ischemic or hypoxic conditions. When administered in large doses, oligomycin B causes hypertension, bradycardia, increased arterial PO2, and metabolic acidosis. Oligomycin B inhibits mitochondrial function and is often used to mimic hypoxia-induced conditions.

References

Grover GJ, Malm J. Pharmacological profile of the selective mitochondrial F1F0 ATP hydrolase inhibitor BMS-199264 in myocardial ischemia. Cardiovasc Ther. 2008 Winter;26(4):287-96. PMID: 19035880.

Grover GJ, Atwal KS, Sleph PG, et al. Excessive ATP hydrolysis in ischemic myocardium by mitochondrial F1F0-ATPase: effect of selective pharmacological inhibition of mitochondrial ATPase hydrolase activity. Am J Physiol Heart Circ Physiol. 2004 Oct;287 (4):H1747-55. Erratum in: Am J Physiol Heart Circ Physiol. 2006 Jul;291(1):H484. PMID: 15371268.

Koos BJ, Sameshima H, Power GG. Fetal breathing movement, sleep state and cardiovascular responses to an inhibitor of mitochondrial ATPase in sheep. J Dev Physiol. 1986 Feb;8(1):67-75. PMID: 2937831.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.