


<div>Store at -20°C</div> <div>#9996</div>	<h1>Oligomycin</h1>	
	5 mg	Orders: 877-616-CELL (2355) orders@cellsignal.com
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Background	During oxidative phosphorylation in mitochondria, the electron transport system pumps H ⁺ from the matrix into the intermembrane compartment. This process generates a H ⁺ gradient across the mitochondrial inner membrane. This H ⁺ gradient is used to drive mitochondrial F ₀ F ₁ ATPase to convert ADP to ATP. Oligomycin, an antibiotic from <i>Streptomyces diastatochromogenes</i> , blocks oxidative phosphorylation by binding to the F ₀ part of the ATPase to inhibit its activity (1-3).
Molecular Formula	Isomer A: C ₄₅ H ₇₄ O ₁₁ Isomer B: C ₄₅ H ₇₂ O ₁₂ Isomer C: C ₄₅ H ₇₄ O ₁₀
Molecular Weight	791.1 g/mol
Purity	97%
CAS	1404-19-9
Solubility	Soluble in DMSO at 300mg/ml and EtOH at 200mg/ml.
Storage	Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.
Directions for Use:	Oligomycin is supplied as a lyophilized powder. For a 5 mM stock, reconstitute the 5 mg in 1.26 ml DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used at 0.5 - 10 μM for 0.5 - 8 hours.
Background References	1. Kagawa, Y. and Racker, E. (1966) <i>J Biol Chem</i> 241, 2461-6. 2. Kagawa, Y. and Racker, E. (1966) <i>J Biol Chem</i> 241, 2467-74. 3. Fessenden, J.M. and Racker, E. (1966) <i>J Biol Chem</i> 241, 2483-9.

Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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