

#9996 Store at -20C	Oligomycin	
	5 mg	Orders: 877-616-CELL (2355) orders@cellsignal.com Support: 877-678-TECH (8324) Web: info@cellsignal.com cellsignal.com
3 Trask Lane Danvers Massachusetts 01923 USA		

For Research Use Only. Not for Use in Diagnostic Procedures.

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	<ol style="list-style-type: none"> 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

Trademarks and Patents Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade

names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.