

Catalog # 10-2092 Oligomycin

CAS# 1404-19-9 From *Streptomyces* sp. Lot # X101739

Oligomycin A: R = OH, R' = H Oligomycin B: R = OH, R' = ketone Oligomycin C: R = H, R' = H

Inhibits mitochondrial F1F0 ATP synthase.¹ A useful tool for decreasing cellular ATP levels.² Induces autophagy.³ Stimulates lysosome acidification.⁴ Protects against ischemic kidney in male rats.⁵

- 1) Antoniel et al. (2014), The oligomycin-sensitivity conferring protein of mitochondrial ATP synthase: emerging new roles in mitochondrial pathophysiology, J. Mol. Sci., **15** 7513
- 2) Ng et al. (2014), Essential role of TID1 in maintaining mitochondrial membrane potential homogeneity and mitochondrial DNA integrity; Mol. Cell Biol., **34** 1427
- 3) Tettamonti et al. (2006), Oligomycin A induces autophagy in the IPLB-LdFB insect cell line; Cell Tissue Res., 326 179
- 4) van Dyke et al. (1993), Acidifcation of rat liver lysosomes:quantification and comparison with endosomes; Am. J. Physiol., 265 C901
- 5) Tanaka et al. (2013), Oligomycin, an F1Fo-ATPase inhibitor, protects against ischemic acute kidney injury in male but not in female rats; J. Pharmacol. Sci., **123** 227

PHYSICAL DATA

Molecular Weight: 791.06

Molecular Formula: C₄₅H₇₄O₁₁ (for Oligomycin A)

Purity: Mixture of Oligomycin A (79.71%), B (11.93%), and C (6.11%)

97% by TLC NMR: (Conforms)

Solubility: DMSO (up to 300 mg/ml), or Ethanol (up to 200 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO or ethanol may be stored at -20°C for up to 3 months.

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