

Oligomycin

Cat. No.:	HY-N6782
CAS No.:	1404-19-9
Target:	Fungal; Antibiotic; ATP Synthase; Oxidative Phosphorylation
Pathway:	Anti-infection; Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month

Oligomycin

SOLVENT & SOLUBILITY

In Vitro	Ethanol : 30 mg/mL (Need ultrasonic and warming) DMSO : 20 mg/mL (Need ultrasonic and warming)
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BIOLOGICAL ACTIVITY

Description	Oligomycin, an antifungal antibiotic, is an inhibitor of H ⁺ -ATP-synthase. Oligomycin blocks oxidative phosphorylation and the electron transport chain. Oligomycin inhibits HIF-1alpha expression in hypoxic tumor cells ^{[1][2][3][4]} .
In Vitro	Oligomycin, inhibitor of the F0 part of H ⁺ -ATP-synthase, suppresses the TNF-induced apoptosis ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell. 2024 Apr 25;187(9):2269-2287.e16.
- Cell Mol Immunol. 2024 Apr 19.
- Nat Commun. 2022 Jun 17;13(1):3486.
- Mol Cell. 2022 May 19;82(10):1821-1835.e6.
- J Am Chem Soc. 2023 Oct 9.

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REFERENCES

[1]. Zhou W, et al. Membrane plasticity facilitates recognition of the inhibitor oligomycin by the mitochondrial ATP synthase rotor. *Biochim Biophys Acta Bioenerg.* 2018;1859(9):789-796.

[2]. SMITH RM, et al. Oligomycin, a new antifungal antibiotic. *Antibiot Chemother (Northfield)*. 1954;4(9):962-970.

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- [3]. López de Figueroa P, et al. Autophagy activation and protection from mitochondrial dysfunction in human chondrocytes. *Arthritis Rheumatol.* 2015;67(4):966-976.
- [4]. Gong Y, et al. Oligomycin inhibits HIF-1alpha expression in hypoxic tumor cells. *Am J Physiol Cell Physiol.* 2005;288(5):C1023-C1029.
- [5]. Shchepina LA, et al. Oligomycin, inhibitor of the F0 part of H⁺-ATP-synthase, suppresses the TNF-induced apoptosis. *Oncogene.* 2002;21(53):8149-8157.
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Caution: Product has not been fully validated for medical applications. For research use only.

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