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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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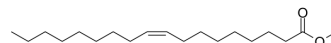
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Methyl oleate

Cat. No.:	HY-N2598
CAS No.:	112-62-9
Molecular Formula:	C ₁₉ H ₃₆ O ₂
Molecular Weight:	296.49
Target:	Bacterial
Pathway:	Anti-infection
Storage:	<div>Pure form</div> <div>-20°C 3 years</div> <div>4°C 2 years</div> <div>In solvent</div> <div>-80°C 6 months</div> <div>-20°C 1 month</div>



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (337.28 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.3728 mL	16.8640 mL	33.7280 mL
	5 mM		0.6746 mL	3.3728 mL	6.7456 mL
	10 mM		0.3373 mL	1.6864 mL	3.3728 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Methyl oleate is a fatty acid methyl ester (FAME) with anti-extended spectrum β -Lactamase (ESBL) potential, anticancer and antibacterial activities. Methyl oleate substantially improves the antioxidation ability but markedly impaired the antiwear capacity of zinc dialkyldithiophosphate (ZDDP). Methyl oleate is promising for research of ESBL producing multi drug resistant (MDR) pathogens^{[1][2][3]}.

In Vitro

Methyl oleate (80, 100 μ g/mL) is effective in inhibiting ESBL producing MDR E. coli and K. pneumoniae^[2]. Methyl oleate (25 μ g-800 μ g, 48 h) exerts an inhibition of A549 cells with an IC₅₀ value of 625 μ g/mL^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay^[2]

Cell Line:	A549 cells
Concentration:	25 μ g-800 μ g
Incubation Time:	48 h

	<table> <tr> <td>Result:</td><td>Lost the cell ability to proliferate by inhibiting cell to cell contact at 24 h and at 48 h all the cells become smaller in size.</td></tr> </table>	Result:	Lost the cell ability to proliferate by inhibiting cell to cell contact at 24 h and at 48 h all the cells become smaller in size.						
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In Vivo	<p>Methyl oleate (50-200 mg/L, mixed in water, a single dose for 96 h) treats the 96 h lethal concentrations obtained for <i>Lobelia rohita</i> with a LC₅₀ value of 50 mg/L^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table> <tr> <td>Animal Model:</td><td><i>Lobelia rohita</i>^[2]</td></tr> <tr> <td>Dosage:</td><td>50-200 mg/L</td></tr> <tr> <td>Administration:</td><td>mixed in water, a single dose for 96 h</td></tr> <tr> <td>Result:</td><td>Displayed behavioural responses such as hyperventilation, motionless state, increase opercular ventilation, general body weakness, skin discoloration, loss of reflex, erratic swimming, and movement in response to the test chemical in fish.</td></tr> </table>	Animal Model:	<i>Lobelia rohita</i> ^[2]	Dosage:	50-200 mg/L	Administration:	mixed in water, a single dose for 96 h	Result:	Displayed behavioural responses such as hyperventilation, motionless state, increase opercular ventilation, general body weakness, skin discoloration, loss of reflex, erratic swimming, and movement in response to the test chemical in fish.
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REFERENCES

- [1]. Padmini N, et al. In vitro and in vivo efficacy of methyl oleate and palmitic acid against ESBL producing MDR *Escherichia coli* and *Klebsiella pneumoniae*. *Microb Pathog*. 2020 Nov;148:104446.
- [2]. Niu K, et al. Effects of methyl oleate and microparticle-enhanced cultivation on echinocandin B fermentation titer. *Bioprocess Biosyst Eng*. 2020 Nov;43(11):2009-2015.
- [3]. Wang J, et al. Engine Oil Degradation Induced by Biodiesel: Effect of Methyl Oleate on the Performance of Zinc Dialkylthiophosphate. *ACS Omega*. 2019 Sep 18;4(14):16166-16170.

Caution: Product has not been fully validated for medical applications. For research use only.

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