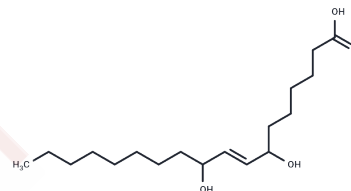


## 7,10-dihydroxy-8(E)-Octadecenoic Acid

### Chemical Properties

CAS No. :	131021-99-3
Formula:	C <sub>18</sub> H <sub>34</sub> O <sub>4</sub>
Molecular Weight:	314.466
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



### Biological Description

Description	7,10-dihydroxy-8(E)-Octadecenoic acid is a hydroxy fatty acid and metabolite of oleic acid that is produced by <i>P. aeruginosa</i> from vegetable oils. It is active against the food-borne pathogenic bacteria <i>S. aureus</i> , <i>S. typhimurium</i> , <i>L. monocytogenes</i> , <i>B. subtilis</i> , and <i>E. coli</i> (MIC <sub>50</sub> s = 31.3, 125, 125, 62.5, and 250 µg/ml, respectively), as well as the plant pathogenic bacteria <i>Erwinia</i> , <i>R. solanacearum</i> , <i>C. glutamicum</i> , and <i>P. syringae</i> (MIC <sub>90</sub> s = 125, 125, 250, and 500 µg/ml, respectively). <sup>2,1</sup>
Targets(IC50)	Others

### Solubility Information

Solubility	DMF: 15 mg/mL (47.7 mM), Sonication is recommended. Ethanol: 100 mg/mL (318 mM), Sonication is recommended. PBS (pH 7.2): 0.25 mg/mL (0.79 mM), Sonication is recommended. DMSO: 20 mg/mL (63.6 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.180 mL	15.8998 mL	31.7995 mL
5 mM	0.636 mL	3.180 mL	6.3599 mL
10 mM	0.318 mL	1.590 mL	3.180 mL
50 mM	0.0636 mL	0.318 mL	0.636 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sohn, H.-R., Bae, J.-H., Hou, C.T., et al. Antibacterial activity of a 7,10-dihydroxy-8(E)-octadecenoic acid against plant pathogenic bacteria. *Enzyme Microb. Technol.* 53(3)152-153(2013)

Chen, K.Y., Kim, I.H., Hou, C.T., et al. Monoacylglycerol of 7,10-dihydroxy-8(E)-octadecenoic acid enhances antibacterial activities against food-borne bacteria. *J. Agric. Food Chem.* 67(29)8191-8196(2019)

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