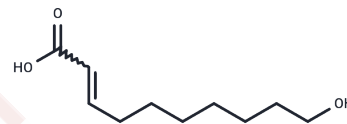


## (E/Z)-10-Hydroxy-2-decenoic acid

## Chemical Properties

CAS No. :	765-01-5
Formula:	C <sub>10</sub> H <sub>18</sub> O <sub>3</sub>
Molecular Weight:	186.25
Storage:	Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	(E/Z)-10-Hydroxy-2-decenoic acid is a mixture of isomers of (E)-10-Hydroxy-2-decenoic acid (Royal Jelly acid). (E/Z)-10-Hydroxy-2-decenoic acid is an unsaturated medium-chain fatty acid that exhibits antibacterial activity against bacteria such as <i>S. aureus</i> (MIC = 23 $\mu$ M) and inhibitory activity against L-02 and IMR-90 cells, with IC <sub>50</sub> values of 44 $\mu$ M and 22.68 $\mu$ M, respectively.
Targets(IC50)	Antibacterial

## Solubility Information

Solubility	DMSO: 200.00 mg/mL (1073.83 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	5.3691 mL	26.8456 mL	53.6913 mL
5 mM	1.0738 mL	5.3691 mL	10.7383 mL
10 mM	0.5369 mL	2.6846 mL	5.3691 mL
50 mM	0.1074 mL	0.5369 mL	1.0738 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

Yang YC, et al. 10-hydroxy-2-decenoic acid of royal jelly exhibits bactericide and anti-inflammatory activity in human colon cancer cells. BMC Complement Altern Med. 2018;18(1):202.

Lin XM, et al. 10-HDA Induces ROS-Mediated Apoptosis in A549 Human Lung Cancer Cells by Regulating the MAPK, STAT3, NF- $\kappa$ B, and TGF- $\beta$ 1 Signaling Pathways. Biomed Res Int. 2020;2020:3042636.

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