

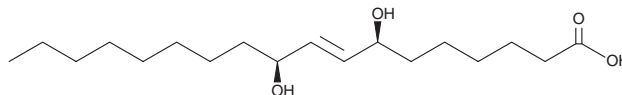
PRODUCT INFORMATION



7(S),10(S)-DiHOME

Item No. 33447

CAS Registry No.: 252255-87-1
Formal Name: 7S,10S-dihydroxy-8E-octadecenoic acid
Synonym: DHOE, DOD
MF: $C_{18}H_{34}O_4$
FW: 314.5
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

7(S),10(S)-DiHOME is supplied as a crystalline solid. A stock solution may be made by dissolving the 7(S),10(S)-DiHOME in the solvent of choice, which should be purged with an inert gas. 7(S),10(S)-DiHOME is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 7(S),10(S)-DiHOME in these solvents is approximately 100, 20, and 15 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 7(S),10(S)-DiHOME can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 7(S),10(S)-DiHOME in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

7(S),10(S)-DiHOME is a hydroxy fatty acid and metabolite of oleic acid (Item Nos. 90260 | 24659) that is produced by *P. aeruginosa* from vegetable oils.¹ It is active against the food-borne pathogenic bacteria *S. aureus*, *S. typhimurium*, *L. monocytogenes*, *B. subtilis*, and *E. coli* (MIC_{50}s = 31.3, 125, 125, 62.5, and 250 $\mu\text{g/ml}$, respectively), as well as the plant pathogenic bacteria *Erwinia*, *R. solanacearum*, *C. glutamicum*, and *P. syringae* (MIC_{90}s = 125, 125, 250, and 500 $\mu\text{g/ml}$, respectively).^{1,2}

References

1. 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).
2. 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).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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