

# PRODUCT INFORMATION



## Oleic Acid-biotin

Item No. 10010624

**Formal Name:** 9Z-octadecnoyl-N'-biotinoyl-1,5-diaminopentane

**MF:** C<sub>28</sub>H<sub>50</sub>N<sub>4</sub>O<sub>3</sub>S

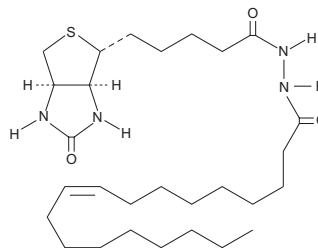
**FW:** 522.8

**Purity:** ≥95%

**Supplied as:** A solution in ethanol

**Storage:** -20°C

**Stability:** ≥2 years



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

### Laboratory Procedures

Oleic acid-biotin is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of oleic acid-biotin in these solvents is approximately 50 mg/ml.

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. If an organic solvent-free solution of oleic acid-biotin is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of oleic acid-biotin in PBS (pH 7.2) is approximately 0.05 mg/ml. For greater aqueous solubility, linoleic acid-biotin can be directly dissolved in 0.1 M Tris-HCl (pH 8.5) (solubility of approximately 0.15 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day. We do not recommend storing the aqueous solution for more than one day.

### Description

Oleic acid is a monounsaturated fatty acid and is one of the major components of membrane phospholipids. Oleic acid contributes about 17% of the total fatty acids esterified to phosphatidylcholine, the major phospholipid class in porcine platelets.<sup>{3964}</sup> Oleic acid-biotin was designed to allow oleic acid to be detected in complexes with protein binding partners such as fatty acid binding proteins (FABPs). This it has the potential to serve as a tool to be used in the general elucidation of the signaling and transport of free oleic acid.

### Reference

1. Wahle, K.W. and Peacock, L.I. Effects of isomeric *cis* and *trans* eighteen carbon monounsaturated fatty acids on porcine platelet function. *Biochim. Biophys. Acta* **1301(1-2)**, 141-149 (1996).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM