

# PRODUCT INFORMATION



## Paclitaxel octadecanedioate

Item No. 28635

**CAS Registry No.:** 2089211-45-8  
**Formal Name:** octadecanedioic acid-1-[(1R,2S)-2-(benzoylamino)-1-[[[(2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)-6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl]oxy]carbonyl]-2-phenylethyl] ester

**Synonyms:** 1,18-Octadecanedioic Acid-Paclitaxel, ODDA-PTX, PTX-FA18

**MF:** C<sub>65</sub>H<sub>83</sub>NO<sub>17</sub>

**FW:** 1,150.4

**Purity:** ≥98%

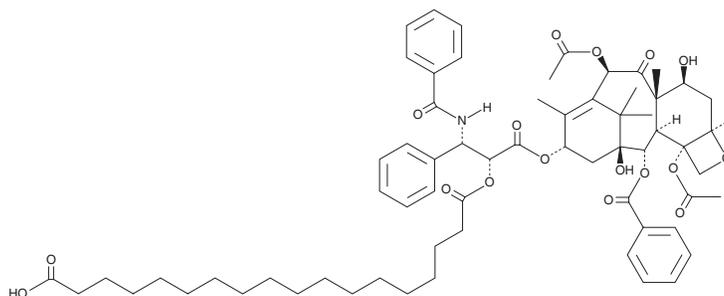
**UV/Vis.:** λ<sub>max</sub>: 228 nm

**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

Paclitaxel octadecanedioate is supplied as a crystalline solid. A stock solution may be made by dissolving the paclitaxel octadecanedioate in the solvent of choice, which should be purged with an inert gas. Paclitaxel octadecanedioate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of paclitaxel octadecanedioate in these solvents is approximately 20, 25, and 30 mg/ml, respectively.

Paclitaxel octadecanedioate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, paclitaxel octadecanedioate should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Paclitaxel octadecanedioate has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Paclitaxel octadecanedioate is a prodrug form of paclitaxel (Item No. 10461) that is comprised of paclitaxel conjugated to 1,18-octadecanedioic acid.<sup>1</sup> Unlike paclitaxel, it does not promote tubulin polymerization *in vitro* when used at a concentration of 10 μM. A 5:1 mixture of paclitaxel octadecanedioate:human serum albumin (HSA) is cytotoxic to HT-1080, PANC-1, and HT-29 cells (IC<sub>50</sub>s = 12, 2.48, and 8.62 nM, respectively). This mixture reduces tumor growth and increases survival in an HT-1080 mouse xenograft model in a dose-dependent manner.

### Reference

1. Callmann, C.E., Leguyader, C.L.M., Burton, S.T., *et al.* Antitumor activity of 1,18-octadecanedioic acid-paclitaxel complexed with human serum albumin. *J. Am. Chem. Soc.* **141**(30), 11765-11769 (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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/19/2024

#### 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