

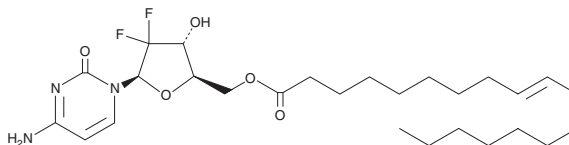
# PRODUCT INFORMATION



## Gemcitabine Elaidate

Item No. 28303

**CAS Registry No.:** 210829-30-4  
**Formal Name:** 2'-deoxy-2',2'-difluoro-cytidine,  
5'-(9E)-9-octadecenoate  
**Synonym:** CP 4126  
**MF:** C<sub>27</sub>H<sub>43</sub>F<sub>2</sub>N<sub>3</sub>O<sub>5</sub>  
**FW:** 527.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 244, 273 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

Gemcitabine elaidate is supplied as a crystalline solid. A stock solution may be made by dissolving the gemcitabine elaidate in the solvent of choice, which should be purged with an inert gas. Gemcitabine elaidate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of gemcitabine elaidate in these solvents is approximately 30 mg/ml.

Gemcitabine elaidate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, gemcitabine elaidate should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Gemcitabine elaidate has a solubility of approximately 0.33 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Gemcitabine elaidate is a lipophilic prodrug form of the nucleoside analog gemcitabine (Item Nos. 11690 | 9003096) that contains an elaidic acid (Item No. 90250) moiety.<sup>1</sup> Gemcitabine elaidate inhibits growth of gemcitabine-sensitive L1210/L5, BCLO, and A2780 cells (IC<sub>50</sub>s = 0.0033, 0.0042, and 0.0025 μM, respectively) but not cytarabine-resistant L4A6 and Bara-C cells (IC<sub>50</sub>s = 16 and 13 μM, respectively) or gemcitabine-resistant AG6000 cells (IC<sub>50</sub> = 91 μM). It inhibits growth of THX, LOX, MOLT-4, and MOLT-4/C8 cells in a manner independent of nucleoside transport. Gemcitabine elaidate reduces tumor growth in EK VX non-small cell lung cancer and MHMX sarcoma mouse xenograft models but not in an H-146 small cell lung cancer mouse xenograft model when administered at a dose of 40 mg/kg every three days.

### Reference

1. Bergman, A.M., Adema, A.D., Balzarini, J., *et al.* Antiproliferative activity, mechanism of action and oral antitumor activity of CP-4126, a fatty acid derivative of gemcitabine, in in vitro and in vivo tumor models. *Invest. New Drugs* **29**(3), 456-466 (2011).

**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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