

RX-3117

## Chemical Properties

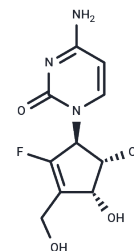
CAS No. : 865838-26-2

Formula: C<sub>10</sub>H<sub>12</sub>FN<sub>3</sub>O<sub>4</sub>

Molecular Weight: 257.22

Storage: Store at low temperature, Keep away from moisture  
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

|               |  |
|---------------|--|
| Description   | RX-3117 (fluorocyclopentenylcytosine) is a novel a cytidine analog. RX-3117 displays anticancer activity in several cancer cell lines, including gemcitabine-resistant variants.   |
| Targets(IC50) | Apoptosis,Nucleoside Antimetabolite/Analog   |
| In vitro      | RX-3117 was a very poor substrate for cytidine deaminase (66,000-fold less than gemcitabine). RX-3117 showed a different sensitivity profile compared to cyclopentenylcytosine and azacytidine, substrates for uridine-cytidine-kinase. Insensitive U937 cells 1 μM RX-3117 resulted in 90% inhibition of RNA synthesis but 100 μM RX-3117 was required in A2780 and CCRF-CEM cells. RX-3117 at IC50 values did not affect the integrity of RNA [1]. |
| In vivo       | RX-3117 (p.o.) was examined in 9 different human tumor xenograft models grown subcutaneously in athymic nude mice. In the Colo 205, H460, H69 and CaSki models, gemcitabine treatment resulted in 28%, 30%, 25% and 0% tumor growth inhibition (TGI), respectively. Whereas oral treatment with RX-3117 induced 100%, 78%, 62% and 66% TGI, respectively [2].  |

## Solubility Information

|            |  |
|------------|--|
| Solubility | DMSO: 50 mg/mL (194.39 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

### Preparing Stock Solutions

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|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 3.8877 mL | 19.4386 mL | 38.8772 mL |
| 5 mM  | 0.7775 mL | 3.8877 mL  | 7.7754 mL  |
| 10 mM | 0.3888 mL | 1.9439 mL  | 3.8877 mL  |
| 50 mM | 0.0778 mL | 0.3888 mL  | 0.7775 mL  |

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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

Peters GJ, et al. Metabolism, mechanism of action and sensitivity profile of fluorocyclopentenylcytosine (RX-3117; TV-1360). Invest New Drugs. 2013 Dec;31(6):1444-57.

Yang MY, et al. A novel cytidine analog, RX-3117, shows potent efficacy in xenograft models, even in tumors that are resistant to gemcitabine. Anticancer Res. 2014 Dec;34(12):6951-9.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481