# FF-10502

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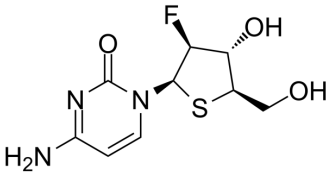
| **Cat. No.:** | HY-115528 |
| **CAS No.:** | 184302-49-6 |
| **Molecular Formula:** | $C_9H_{12}FN_3O_3S$ |
| **Molecular Weight:** | 261.27 |
| **Target:** | Nucleoside Antimetabolite/Analog; DNA/RNA Synthesis |
| **Pathway:** | Cell Cycle/DNA Damage |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |




## BIOLOGICAL ACTIVITY

**Description**

FF-10502, a structural analog of Gemcitabine, is a pyrimidine nucleoside antimetabolite. FF-10502 inhibits DNA polymerase α and β. FF-10502 shows beneficial anticancer activity via a mechanism of action on dormant cells[1].

**In Vitro**

FF-10502 (0.1 nM-10 μM; 72 hours) shows the growth inhibition of pancreatic cancer cell lines, with $IC_{50}$s of 59.9 nM, 39.6 nM, 68.2 nM, and 331.4 nM for BxPC-3, SUIT-2, Capan-1, and MIA PaCa-2 cells, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

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| Cell Line: | Human pancreatic cancer cell lines (BxPC-3, SUIT-2, Capan-1, and MIA PaCa-2) |
| Concentration: | 0.1 nM to 10 μM |
| Incubation Time: | 72 hours |
| Result: | Inhibited the growth of pancreatic cancer cell lines. |

**In Vivo**

FF-10502 (120-480 mg/kg; i.v; once weekly; for 4 weeks) shows an antitumor effect in a mouse xenograft model with the subcutaneously implanted human pancreatic cancer cell line Capan-1[1].

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| Animal Model: | Five-week-old female nude mice (BALB/c-nu/nu) injected with Capan-1 cells[1]. |
| Dosage: | 120 mg/kg, 240 mg/kg, 360 mg/kg, and 480 mg/kg |
| Administration: | Tail vein injection; once weekly; for 4 weeks |
| Result: | Suppressed tumor growth in a dose-dependent manner in mice. |

## REFERENCES

[1]. Shinji Mima, et al. FF-10502, an Antimetabolite with Novel Activity on Dormant Cells, Is Superior to Gemcitabine for Targeting Pancreatic Cancer Cells. J Pharmacol Exp Ther. 2018 Jul;366(1):125-135.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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