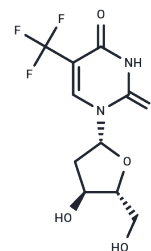


Trifluridine

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | 70-00-8 |
| Formula: | C ₁₀ H ₁₁ F ₃ N ₂ O ₅ |
| Molecular Weight: | 296.2 |
| Appearance: | no data available |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year |



Biological Description

| | |
|---------------|--|
| Description | Trifluridine (NSC-75520) is a fluorinated thymidine analog with potential antineoplastic activity. Trifluridine is incorporated into DNA and inhibits thymidylate synthase, resulting in inhibition of DNA synthesis, inhibition of protein synthesis, and apoptosis. This agent also exhibits antiviral activity. |
| Targets(IC50) | Nucleoside Antimetabolite/Analog,HSV,DNA/RNA Synthesis |
| In vitro | Differences in substrate specificity at TK1 and DUT resulted in substantial Trifluridine (FTD) incorporation into DNA. Trifluridine-treated cells display nuclear morphology compared to 2'-deoxy-5-fluorouridine-treated cells.Trifluridine dose-dependently inhibits the proliferation of human colorectal cancer cells transplanted into nude mice and mouse bone marrow cells.Trifluridine dose-dependently inhibits colony-forming bone marrow cells. |
| In vivo | Differences in substrate specificity at TK1 and DUT resulted in substantial Trifluridine (FTD) incorporation into DNA. Trifluridine-treated cells display nuclear morphology compared to 2'-deoxy-5-fluorouridine-treated cells.Trifluridine dose-dependently inhibits the proliferation of human colorectal cancer cells transplanted into nude mice and mouse bone marrow cells.Trifluridine dose-dependently inhibits colony-forming bone marrow cells. |

Solubility Information

| | |
|------------|--|
| Solubility | H ₂ O: 14.8 mg/mL (49.97 mM),Sonication is recommended. DMSO: 55 mg/mL (185.69 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|-----------|
| 1 mM | 3.3761 mL | 16.8805 mL | 33.761 mL |
| 5 mM | 0.6752 mL | 3.3761 mL | 6.7522 mL |
| 10 mM | 0.3376 mL | 1.688 mL | 3.3761 mL |
| 50 mM | 0.0675 mL | 0.3376 mL | 0.6752 mL |

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.

Reference

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Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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