**Tegafur**

Cat. No.: HY-17400  
CAS No.: 17902-23-7  
Molecular Formula: $C_8H_9FN_2O_3$  
Molecular Weight: 200.17  
Target: Nucleoside Antimetabolite/Analog  
Pathway: Cell Cycle/DNA Damage  
Storage: 4°C, protect from light  
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

**SOLVENT & SOLUBILITY**

<table>
<thead>
<tr>
<th>In Vitro</th>
<th>DMSO: ≥ 48 mg/mL (239.80 mM)</th>
<th>* “≥” means soluble, but saturation unknown.</th>
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<tr>
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<td>Preparing Stock Solutions</td>
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<td>Solvent Concentration</td>
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<td>1 mM</td>
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<td>5 mM</td>
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<td>10 mM</td>
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</table>

Please refer to the solubility information to select the appropriate solvent.

**BIOLOGICAL ACTIVITY**

**Description**  
Tegafur (FT 207; NSC 148958) is a chemotherapeutic 5-FU prodrug used in the treatment of cancers; is a component of tegafur-uracil.

**IC₅₀ & Target**  
Nucleoside antimetabolite/analog

**In Vitro**  
Tegafur is bioactivated to 5-FU by liver microsomal cytochrome P450 enzymes. 5-FU is subsequently converted into its active metabolites 5-fluoro-deoxyuridine-monophosphate (FdUMP) and 5-fluorouridine-triphosphate (FUTP) intracellularly; these metabolites inhibit the enzyme thymidylate synthase and intercalate into RNA, resulting in decreased thymidine synthesis, reduced DNA synthesis, disrupted RNA function, and tumor cell cytotoxicity.

**CUSTOMER VALIDATION**

REFERENCES


[5]. Tegafur-uracil