Fotemustine

Cat. No.: HY-B0733
CAS No.: 92118-27-9
Molecular Formula: \( C_9H_{19}ClN_3O_5P \)
Molecular Weight: 315.69
Target: DNA Alkylator/Crosslinker
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

In Vitro

DMSO: ≥ 3.2 mg/mL (10.14 mM)
* “≥” means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>3.1677 mL</td>
<td>15.8383 mL</td>
<td>31.6766 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6335 mL</td>
<td>3.1677 mL</td>
<td>6.3353 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3168 mL</td>
<td>1.5838 mL</td>
<td>3.1677 mL</td>
</tr>
</tbody>
</table>

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

BIOLOGICAL ACTIVITY

Description

Fotemustine is a DNA-alkylating agent, with antitumor activity.

IC₅₀ & Target

DNA Alkylator[1]

In Vitro

Fotemustine is a DNA-alkylating agent. Fotemustine (800 μM) decreases GSH and intracellular GSSG levels but increases the extracellular GSSG-levels rapidly in isolated rat hepatocytes[1]. Fotemustine shows inhibitory effect on several tumor cell lines, with IC₅₀ ranging from 0.05 to 0.18 mM[2].

PROTOCOL

Cell Assay [2]

Cell proliferation assays are performed using MTT. Briefly, cell suspensions containing \( 2 \times 10^4 \) viable cells/mL are plated into 96-well dishes and allowed to attach for 48 h at 37°C in a 5% CO₂ atmosphere. The culture medium is then removed and the cells are incubated for two doubling times at 37°C in the culture medium containing...
fotemustine (10⁻³ to 10 mM). When tested, amifostine or WR-1065 (10⁻⁴ to 10 mM) is added before Fotemustine for 15 min. Control cultures are exposed to saline for 15 min and then allowed to grow for the same duration in complete culture medium [2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**
