ABT-751

Cat. No.: HY-13270
CAS No.: 141430-65-1
Molecular Formula: C₈₁₇N₃O₄S
Molecular Weight: 371.41
Target: Microtubule/Tubulin; Autophagy
Pathway: Cell Cycle/DNA Damage; Cytoskeleton; Autophagy
Storage: Powder
-20°C 3 years
4°C 2 years
In solvent
-80°C 6 months
-20°C 1 month

Solvent & Solubility

Solvent & Solubility

In Vitro

DMSO: ≥ 48 mg/mL (129.24 mM)

*“≥” means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.6924 mL</td>
<td>13.4622 mL</td>
<td>26.9244 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5385 mL</td>
<td>2.6924 mL</td>
<td>5.3849 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2692 mL</td>
<td>1.3462 mL</td>
<td>2.6924 mL</td>
</tr>
</tbody>
</table>

Preparing Stock Solutions

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

BIOLOGICAL ACTIVITY

Description

ABT-751(E 7010) is a novel bioavailable tubulin-binding and antimitotic sulfonamide agent with IC50 of about 1.5 and 3.4 μM in neuroblastoma and non-neuroblastoma cell lines, respectively. IC50 Value: 1.5 μM (neuroblastoma); 3.4 μM (non-neuroblastoma) Target: Microtubule/Tubulin in vitro: ABT-751 shows the selective cytotoxicity with IC50 of 0.6–2.6 μM in neuroblastoma and 0.7–4.6 μM in other solid tumor cell lines. Furthermore, ABT-751 also exhibits a selective effect on dynamic microtubules and spares stable microtubules, accounting for the persistence of acetylated and detyrosinated α-tubulin positive polymerized tubules at the IC90 concentration of ABT-751. In vivo: In Calu-6 xenograft model, ABT-751 as a single agent at 100 and 75 mg/kg/day shows significant antitumor activity, while in combination with cisplatin, ABT-751 shows a dose-dependent enhancement in growth delay. In the HT-29 colon xenograft model, ABT-751 also shows significant antitumor activity as a single agent and produced a dose-dependent enhancement in growth delay In combination with 5-FU. In dogs with lymphoma, ABT-751 exhibits the dose-limiting toxicities that included vomiting, diarrhea, anorexia, or some combination of these with a maximum tolerated dose (MTD) of 350 mg/m2 PO q24h. Furthermore, the mean AUC and Cmax for ABT-751 at the MTD of 350 mg/m2 is 5.55 μg-hour/mL and 0.9 μg/mL, respectively.
REFERENCES


[2]. Elizabeth Fox et al. A Phase I Study of ABT-751, an Orally Bioavailable Tubulin Inhibitor, Administered Daily for 21 Days Every 28 Days in Pediatric Patients with Solid Tumors Clin Cancer Res February 15, 2008 14; 1111


[5]. Gaynon PS, Harned TM; for the Therapeutic Advances in Childhood Leukemia, Lymphoma (TACL) Consortium.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA