BG45

Cat. No.: HY-18712
CAS No.: 926259-99-6
Molecular Formula: C₁₁H₁₀N₄O
Molecular Weight: 214.22
Target: HDAC
Pathway: Cell Cycle/DNA Damage; Epigenetics
Storage: Powder
-20°C 3 years
4°C 2 years
In solvent
-80°C 6 months
-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro
DMSO: ≥ 48 mg/mL (224.07 mM)
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>4.6681 mL</td>
<td>23.3405 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.9336 mL</td>
<td>4.6681 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.4668 mL</td>
<td>2.3340 mL</td>
</tr>
</tbody>
</table>

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

In Vivo
1. BG45 is diluted in natural saline (NS)[2].

BIOLOGICAL ACTIVITY

Description
BG45 is an HDAC class I inhibitor with selectivity for HDAC3 (IC₅₀ = 289 nM). It inhibits HDAC1, HDAC2, and HDAC6 with greatly reduced potency (IC₅₀s = 2, 2.2, and >20 μM, respectively). IC₅₀ value: 289 nM (HDAC3), 2 μM (HDAC1), 2.2 μM (HDAC2), >20 μM (HDAC6). Target: HDAC. At concentrations up to 50 mg/kg, BG45 alone or in combination with Bortezomib has been shown to dose-dependently inhibit tumor growth in a mouse model of multiple myeloma.[1]

IC₅₀ & Target

<table>
<thead>
<tr>
<th>IC₅₀ &amp; Target</th>
<th>HDAC3</th>
<th>HDAC1</th>
<th>HDAC2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.289 μM (IC₅₀)</td>
<td>2.0 μM (IC₅₀)</td>
<td>2.2 μM (IC₅₀)</td>
</tr>
</tbody>
</table>
REFERENCES


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

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