**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>Solvent Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>4.6681 mL</td>
<td>23.3405 mL</td>
<td>46.6810 mL</td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td>0.9336 mL</td>
<td>4.6681 mL</td>
<td>9.3362 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.4668 mL</td>
<td>2.3340 mL</td>
<td>4.6681 mL</td>
<td></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 values: 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**  
HDAC3, IC₅₀: 0.289 μM; HDAC1, IC₅₀: 2.0 μM; HDAC2, IC₅₀: 2.2 μM

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\[^{1}\] www.MedChemExpress.com
REFERENCES


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