**Bromobimane**

Cat. No.: HY-100041  
CAS No.: 71418-44-5  
Molecular Formula: \( \text{C}_{10}\text{H}_{11}\text{BrN}_{2}O_{2} \)  
Molecular Weight: 271.11  
Target: Fluorescent Dye  
Pathway: Others  
Storage: 4°C, protect from light  
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

**SOLVENT & SOLUBILITY**

**In Vitro**

DMSO: ≥ 86.6 mg/mL (319.43 mM)  
* “≥” means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>3.6885 mL</td>
<td>18.4427 mL</td>
<td>36.8854 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.7377 mL</td>
<td>3.6885 mL</td>
<td>7.3771 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.3689 mL</td>
<td>1.8443 mL</td>
<td>3.6885 mL</td>
</tr>
</tbody>
</table>

Preparing Stock Solutions

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   Solubility: ≥ 2.08 mg/mL (7.67 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (7.67 mM); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**

Bromobimane (Monobromobimane) is a nonfluorescent and converts into fluorescent products when reacts with thiols. Bromobimane has potential applications in labeling thiols\(^1\)[\(^2\)].

**In Vitro**

Bromobimane (mBBr) labeled reactive thiols in cells\(^1\)

1. Prepare a 100 mM mBBr solution with acetonitrile.
2. Add 1 mL of 10% cell suspension to 15-25 μL of 100 mM mBBr solution.
3. After incubation at 37°C for 30-45 min, fluorescence detection was performed.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.
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REFERENCES
