Product Name: G-1
Catalog No.: 3577
Batch No.: 7

CAS Number: 881639-98-1
IUPAC Name: (±)-1-[(3aR*,4S*,9bS*)-4-(6-Bromo-1,3-benzodioxol-5-yl)-3a,4,5,9b-tetrahydro-3H-cyclopenta[c]quinolin-8-yl]-ethanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( C_{21}H_{18}BrNO_3 \)
Batch Molecular Weight: 412.28
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C

2. ANALYTICAL DATA

TLC: \( R_f = 0.5 \) (Ethyl acetate:Petroleum ether [3:7])
HPLC: Shows 98.7% purity
\(^1\)H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>61.18</td>
<td>60.95</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>4.4</td>
<td>4.39</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>3.4</td>
<td>3.27</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**G-1**

**Product Information**

**Product Name:** G-1  
**Catalog No.:** 3577  
**Batch No.:** 7

**CAS Number:** 881639-98-1  
**IUPAC Name:** \((\pm)-1-[(3a^R,4S^*,9bS^*)-4-(6-Bromo-1,3-benzodioxol-5-yl)-3a,4,5,9b-tetrahydro-3H-cyclopenta[c]quinolin-8-yl]-ethanone\)

**Description:** Potent and selective GPER agonist (\(K_\text{i} = 11\) nM, \(EC_{50} = 2\) nM); displays no activity at ER\(\alpha\) and ER\(\beta\) at concentrations up to 10 \(\mu\)M. Increases cytosolic Ca\(^{2+}\) and inhibits migration of SKBr3 cells and MCF-7 cells in response to chemoattractants (IC\(_{50}\) values are 0.7 and 1.6 nM respectively) in vitro. Blocks MCF-1 cell cycle progression at the G\(_1\) phase. Displays therapeutic effects in the mouse EAE model of multiple sclerosis. Also inhibits glutamate-induced autophagy and neuronal loss in cultured primary cortical neurons.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** \(C_{21}H_{18}BrNO_3\)
- **Batch Molecular Weight:** 412.28
- **Physical Appearance:** Off White solid
- **Minimum Purity:** >98%
- **Batch Molecular Structure:**

![Batch Molecular Structure](image)

**Storage:** Store at -20°C

**Solubility & Usage Info:**
DMSO to 100 mM

**Stability and Solubility Advice:**
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
- **SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
- **SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**