Product Name: Diphenyleneiodonium chloride
CAS Number: 4673-26-1
IUPAC Name: [1,1'-Biphenyl]-2,2'-diyliodonium chloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C_{12}H_{8}ClI
Batch Molecular Weight: 314.55
Physical Appearance: White powder
Solubility: DMSO to 10 mM
Storage: Desiccate at -20°C

2. ANALYTICAL DATA

TLC: R_f = 0.64 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])
Melting Point: Between 315 - 320°C
HPLC: Shows 100% purity
^1H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>45.82</td>
<td>46.19</td>
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<tr>
<td>Hydrogen</td>
<td>2.56</td>
<td>2.91</td>
</tr>
</tbody>
</table>

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

Product Name: Diphenyleneiodonium chloride
CAS Number: 4673-26-1
IUPAC Name: [1,1’-Biphenyl]-2,2’-diyliodonium chloride

Catalog No.: 0504
Batch No.: 3

Description:
GPR3 agonist (EC₉₀ = 1 μM); activates adenylate cyclase through GPR3 but not GPR6 or GPR12. Also induces Ca²⁺ mobilization and β-arrestin receptor internalization. Binds strongly to flavoproteins; inhibits several enzymes, including NO synthase, NADPH oxidases and NADPH cytochrome P450 oxidoreductase. Also inhibits platelet aggregation.

Physical and Chemical Properties:
Batch Molecular Formula: C₁₂H₈ClI
Batch Molecular Weight: 314.55
Physical Appearance: White powder
Minimum Purity: >99%

Batch Molecular Structure:

Storage: Desiccate at -20°C

Solubility & Usage Info:
DMSO to 10 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: