Product Name: Olanzapine
CAS Number: 132539-06-1
IUPAC Name: 2-Methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]benzodiazepine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{17}\text{H}_{20}\text{N}_4\text{S} \)
Batch Molecular Weight: 312.43
Physical Appearance: Yellow solid
Solubility:
- DMSO to 100 mM
- 1eq. HCl to 100 mM
- Ethanol to 10 mM
Storage: Store at +4°C

Batch Molecular Structure:

![Chemical Structure](image)

2. ANALYTICAL DATA

Melting Point: Between 192 - 195°C
HPLC: Shows 99.3% purity
\(^1\text{H} \text{NMR:}\) 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>C</td>
<td>65.35</td>
<td>65.55</td>
</tr>
<tr>
<td>H</td>
<td>6.45</td>
<td>6.51</td>
</tr>
<tr>
<td>N</td>
<td>17.93</td>
<td>18.01</td>
</tr>
</tbody>
</table>
Product Name: Olanzapine
Catalog No.: 4349  Batch No.: 1

Description:
Antagonist of 5-HT<sub>2A</sub> and dopamine D<sub>2</sub> receptors (K<sub>i</sub> values are 4 and 11 nM respectively). Also displays affinity for a range of other receptors including D<sub>1</sub> and D<sub>4</sub>, 5-HT<sub>2C</sub>, α<sub>1</sub>, H<sub>1</sub> and M<sub>1-4</sub> receptors (K<sub>i</sub> values range between 1.9 and 31 nM). Atypical antipsychotic. Displays anticholinergic properties.

Physical and Chemical Properties:
Batch Molecular Formula: C<sub>17</sub>H<sub>20</sub>N<sub>6</sub>S
Batch Molecular Weight: 312.43
Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:
DMSO to 100 mM
1eq. HCl to 100 mM
ethanol 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: