1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{19}\text{H}_{27}\text{NO}_3 \)

Batch Molecular Weight: 317.2

Physical Appearance: White solid

Solubility:
- Ethanol to 30 mM
- DMSO to 100 mM

Storage: Store at +4°C

2. ANALYTICAL DATA

HPLC:
Shows 99.8% purity

\(^1\text{H NMR:} \)
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>71.89</td>
<td>71.88</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>8.57</td>
<td>8.61</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>4.41</td>
<td>4.51</td>
</tr>
</tbody>
</table>

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

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956
Product Name: Tetrabenazine  
Catalog No.: 2175  
Batch No.: 4

CAS Number: 58-46-8  
IUPAC Name: (3R,11bR)-rel-1,3,4,6,7,11b-hexahydro-9,10-dimethoxy-3-(2-methylpropyl)-2H-benzo[a]quinolizin-2-one

Description:
Tetrabenazine is an inhibitor of vesicular monoamine transport with a 10-fold selectivity for the VMAT2 transporter over VMAT1 (IC50 values = 0.3 μM and 3.4 μM, respectively). Tetrabenazine blocks D2 receptors and dopamine uptake (IC50 = 0.12 μM) and inhibits serotonin transport by VMAT2 (IC50 = 300 nM). In an animal model of Huntington's disease, Tetrabenazine prevents the decline in motor control and reduces loss of striatal neurons. Tetrabenazine increases cFos expression in the thalamus and hippocampus, reduces brain connectivity and spontaneous locomotion and also causes behavioral depression. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:
Batch Molecular Formula: C19H27NO3  
Batch Molecular Weight: 317.2  
Physical Appearance: White solid  
Minimum Purity: ≥98%

Storage: Store at +4°C

Solubility & Usage Info:
etanol to 30 mM  
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: