1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $\text{C}_{26}\text{H}_{28}\text{N}_6\cdot\frac{1}{4}\text{H}_2\text{O}$

Batch Molecular Weight: 429.04

Physical Appearance: Brown solid

Solubility: DMSO to 25 mM, ethanol to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:

![Batch Molecular Structure](image)

2. ANALYTICAL DATA

HPLC: Shows 98.5% 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>72.79</td>
<td>72.95</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>6.7</td>
<td>6.62</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>19.59</td>
<td>19.62</td>
</tr>
</tbody>
</table>
Product Name: TPEN
CAS Number: 16858-02-9
IUPAC Name: N,N,N',N'-Tetrakis(2-pyridylmethyl)ethylenediamine

Description:
Heavy metal chelator. Reacts with both Zn-proteome and Zn-metallothionein (MT) in LLC-PK_1 cells; acts as an intracellular chelator of proteomic Zn^{2+}. Activity decreases intracellular zinc levels, and induces apoptosis in HeLa and cultured human retinal pigment epithelium (RPE) cells. Cell permeable.

Physical and Chemical Properties:
Batch Molecular Formula: C\text{26}H\text{28}N\text{6}.\frac{1}{4}H_{2}O
Batch Molecular Weight: 429.04
Physical Appearance: Brown solid
Minimum Purity: >98%

Batch Molecular Structure:

![Molecular Structure Image]

Storage: Store at +4°C

Solubility & Usage Info:
DMSO to 25 mM
ethanol 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:

