1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $\text{C}_{119}\text{H}_{206}\text{N}_{32}\text{O}_{35}$
Batch Molecular Weight: 2645.13
Physical Appearance: White lyophilised solid
Net Peptide Content: 78%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in 20% ethanol / water
Storage: Store at -20°C
Peptide Sequence: Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala-Pro-
Ala-Gly-Ala-Ser-Arg-Leu-Leu-Leu-Thr-
Gly-Glu-Ile-Asp-Leu-Pro

2. ANALYTICAL DATA

HPLC: Shows 96.4% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

<table>
<thead>
<tr>
<th>Amino Acid</th>
<th>Theoretical</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ala</td>
<td>4.00</td>
<td>3.68</td>
</tr>
<tr>
<td>Arg</td>
<td>2.00</td>
<td>1.98</td>
</tr>
<tr>
<td>Asx</td>
<td>1.00</td>
<td>0.99</td>
</tr>
<tr>
<td>Cys</td>
<td></td>
<td>Pro</td>
</tr>
<tr>
<td>Glx</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Gly</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>His</td>
<td></td>
<td>Thr</td>
</tr>
<tr>
<td>Ile</td>
<td>2.00</td>
<td>1.98</td>
</tr>
<tr>
<td>Leu</td>
<td>7.00</td>
<td>6.90</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Name: Colivelin
CAS Number: 867021-83-8

Description:
Neuroprotective peptide and activator of STAT3. Protects neurons against the neurotoxic effects of amyloid β-peptide (1-43) at a concentration of 100 fM in vitro. Suppresses neuronal death by activating STAT3 in vitro; upregulates cholinergic transmission and ameliorates memory impairment in Alzheimer’s disease (AD) models. Also prevents alcohol-induced apoptosis in a fetal mouse model. Brain penetrant.

Physical and Chemical Properties:
Batch Molecular Formula: C119H206N32O35
Batch Molecular Weight: 2645.13
Physical Appearance: White lyophilised solid

Peptide Sequence:
Ser-Ala-Leu-Leu-Arg-Ser-Ile-Pro-Ala-Pro-Ala-Gly-Ala-Ser-Arg-Leu-Leu-Leu-Leu-Thr-Gly-Glu-Ile-Asp-Leu-Pro

Storage: Store at -20°C

Solubility & Usage Info:
Soluble to 1 mg/ml in 20% ethanol / water

Net Peptide Content: 78% (Remaining weight made up of counterions and residual water).

Counter Ion: TFA

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).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 μm filter to remove potential bacterial contamination whenever possible.

References:
