1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{40}\text{H}_{65}\text{N}_{13}\text{O}_{10} \)

Batch Molecular Weight: 888.03

Physical Appearance: White lyophilised solid

Net Peptide Content: 74%

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in 20% acetonitrile / water

Storage: Store at -20°C

Peptide Sequence: Ser-Leu-Ala-Asx-Pro-Gln-Arg-Phe-NH₂

2. ANALYTICAL DATA

HPLC: Shows 98% 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>2.00</td>
<td>1.95</td>
</tr>
<tr>
<td>Arg</td>
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<td>1.08</td>
</tr>
<tr>
<td>Asx</td>
<td></td>
<td>Phe</td>
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<tr>
<td>Cys</td>
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<td>Pro</td>
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<td>Glx</td>
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<td>1.01</td>
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<tr>
<td>Gly</td>
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<tr>
<td>His</td>
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<td>Trp</td>
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<tr>
<td>Ile</td>
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<td>Tyr</td>
</tr>
<tr>
<td>Leu</td>
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</tbody>
</table>
Product Name: Neuropeptide SF (mouse, rat)
Catalog No.: 3647
Batch No.: 1

Description:
Neuropeptide FF receptor agonist (K_0 values are 48.4 and 12.1 nM for NPFF1 and NPFF2, respectively). Potentiates the antinociceptive action of morphine in vivo and reverses the loss of morphine potency in tolerant animals. Also increases the amplitude of the sustained current of heterologously expressed acid sensing ion channel 3 (ASIC3) (EC_50 ~ 50 μM).

Physical and Chemical Properties:
Batch Molecular Formula: C_{40}H_{60}N_{13}O_{10}
Batch Molecular Weight: 888.03
Physical Appearance: White lyophilised solid

Solubility & Usage Info:
Soluble to 1 mg/ml in 20% acetonitrile / water
This product is supplied as a lyophilised solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Net Peptide Content: 74% (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 as 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: