1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** $C_{58}H_{79}N_{15}O_{16}$
- **Batch Molecular Weight:** 1242.37
- **Physical Appearance:** White lyophilised solid
- **Net Peptide Content:** 91%
- **Counter Ion:** TFA
- **Solubility:** Soluble to 1 mg/ml in water
- **Storage:** Store at -20°C
- **Peptide Sequence:** Trp-Arg-Gln-Ala-Ala-Phe-Val-Asp-Ser-Tyr

2. ANALYTICAL DATA

- **HPLC:** Shows 96.6% purity
- **Mass Spectrum:** Consistent with structure

3. AMINO ACID ANALYSIS DATA

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<th>Actual</th>
<th>Amino Acid</th>
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Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Description:
Panx-1 mimetic inhibitory peptide that blocks pannexin-1 gap junctions. Inhibits P2X- mediated dye uptake, ATP-mediated IL-1β release and caspase-1 activation without altering membrane current in macrophages in vitro. Also blocks activation of NMDA receptor secondary currents (I_{NMDA}) by > 70%.

Physical and Chemical Properties:
Batch Molecular Formula: C_{68}H_{79}N_{16}O_{16}
Batch Molecular Weight: 1242.37
Physical Appearance: White lyophilised solid

Peptide Sequence:
Trp-Arg-Cln-Ala-Ala-Phe-Val-Asp-Ser-Tyr

Storage: Store at -20°C

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

Net Peptide Content: 91% (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:


Pelegrin and Surprenant (2006) Pannexin-1 mediates large pore formation and interleukin-1β; release by the ATP-gated P2X7 receptor. EMBO J. 25 5071. PMID: 17036048.