1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{217}\text{H}_{360}\text{N}_{68}\text{O}_{60}\text{S}_{10} \)
Batch Molecular Weight: 5202.25
Physical Appearance: White lyophilised solid
Net Peptide Content: 90%
Counter Ion: TFA
Solubility: Soluble in water
Storage: Desiccate at -20°C
Peptide Sequence:

\[
\text{Lys-Lys-Lys-Cys-Ile-Ala-Lys-Asp-Tyr-Gly-Arg-}
\text{Cys-Lys-Trp-Gly-Gly-Thr-Pro-Cys-Cys-Arg-Gly-}
\text{Arg-Gly-Cys-Ile-Cys-Ser-Ile-Met-Gly-Thr-Asn-}
\text{Cys-Glu-Cys-Lys-Pro-Arg-Leu-Ile-Met-Glu-Gly-}
\text{Leu-Gly-Leu-Ala}
\]

2. ANALYTICAL DATA

HPLC: Shows 100% purity
Product Name: ω-Agatoxin IVA
Catalog No.: 2799  Batch No.: 7

CAS Number: 145017-83-0

Description:
Selective blocker of P-type calcium channels (IC\textsubscript{50} < 1 - 3 nM). Also inhibits N-type channels at micromolar concentrations.

Physical and Chemical Properties:
Batch Molecular Formula: C\textsubscript{217}H\textsubscript{396}N\textsubscript{98}O\textsubscript{96}S\textsubscript{10}
Batch Molecular Weight: 5202.25
Physical Appearance: White lyophilised solid

Peptide Sequence:
Lys-Lys-Lys-Cys-Ile-Ala-Lys-Asp-Tyr-Gly-Arg-
Cys-Lys-Trp-Gly-Gly-Thr-Pro-Cys-Cys-Arg-Gly-
Arg-Gly-Cys-Ile-Cys-Ser-Ile-Met-Gly-Thr-Asn-
Cys-Glu-Cys-Lys-Pro-Arg-Leu-Ile-Met-Glu-Gly-
Leu-Gly-Leu-Ala

Storage: Desiccate at -20°C

Solubility & Usage Info:
Soluble in water
This product is supplied as a lyophilized 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: 90% (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 lyophillized 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: