

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** ω-Conotoxin GVIA

**Catalog No.:** 1085

**Batch No.:** 39

CAS Number: 106375-28-4

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>120</sub> H <sub>182</sub> N <sub>38</sub> O <sub>43</sub> S <sub>6</sub>
<b>Batch Molecular Weight:</b>	3037
<b>Physical Appearance:</b>	White lyophilised solid
<b>Net Peptide Content:</b>	95%
<b>Counter Ion:</b>	TFA
<b>Solubility:</b>	Soluble to 1 mg/ml in water
<b>Storage:</b>	Desiccate at -20°C
<b>Peptide Sequence:</b>	Cys-Lys-Ser-Hyp-Gly-Ser-Ser-Cys-Ser-Hyp- └──────────────────┬──────────────────┘ Thr-Ser-Tyr-Asn-Cys-Cys-Arg-Ser-Cys-Asn- └──────────┘ Hyp-Tyr-Thr-Lys-Arg-Cys-Tyr-NH <sub>2</sub>

### 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 96.57% purity
--------------	---------------------

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)

Tel: +1 612 379 2956

**Product Name:**  $\omega$ -Conotoxin GVIA

**Catalog No.:** 1085

**Batch No.:** 39

CAS Number: 106375-28-4

**Description:**

Peptide neurotoxin; selectively and reversibly blocks N-type calcium channels ( $IC_{50}$  = 0.15 nM). Reduces (RS)-3,5-DHPG (Cat. No. 0342)-induced long term depression in vivo.

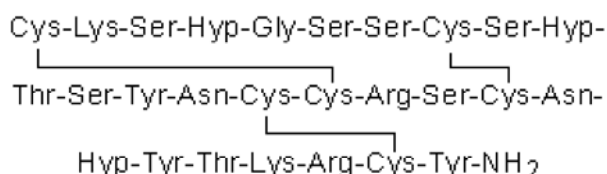
**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{120}H_{182}N_{38}O_{43}S_6$

Batch Molecular Weight: 3037

Physical Appearance: White lyophilised solid

**Peptide Sequence:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 1 mg/ml 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:** 95% (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  $\mu$ m filter to remove potential bacterial contamination whenever possible.

**Other Information:**

**This is a dual-use item with associated conditions of supply; the relevant licence/documentation from the appropriate governing body will be required.**

**Note on Biotubes:**

Toxins are supplied in protective biotubes. These biotubes have a screw top lid, which is manually tightened and can be easily unscrewed. If the lid is particularly tight, a coin placed in the top slot may be used to unscrew it.

**References:**

**Connelly et al** (2011) Distinct mechanisms contribute to agonist and synaptically induced metabotropic glutamate receptor long-term depression. *Eur.J.Pharmacol.* **667** 160. PMID: 21575629.

**Wright and Angu** (1997) Prolonged cardiovascular effects of the N-type  $Ca^{2+}$  channel antagonist  $\omega$ -conotoxin GVIA in conscious rabbits. *J.Cardiovasc.Pharmacol.* **30** 392. PMID: 9300325.

**Sato et al** (1993) Role of basic residues for the binding of omega-conotoxin GVIA to N-type calcium channels. *Biochem.Biophys.Res.Comm.* **194** 1292. PMID: 8394704.

**Tsien et al** (1988) Multiple types of neuronal calcium channels and their selective modulation. *TiNS* **11** 431. PMID: 2469160.  
Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com  
techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors  
Tel:+1 612 379 2956