

## Certificate Of Analysis

### Quality Control Testing and Research Application

COA Preparation Date: 09/11/2011  
 COA Revision Date: 09/11/2014

**Product:**  $\omega$ -Agatoxin IVA  
**Cat. No:** BP0022  
**Batch No:** 0022BP/01  
**Chemical Name:**  $\omega$ -Agatoxin IVA

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>217</sub>H<sub>360</sub>N<sub>68</sub>O<sub>60</sub>S<sub>10</sub>  
**Batch Molecular Weight:** 5202.25  
**CAS No:**  
**Physical Appearance:** White lyophilised solid  
**Melting Point:**  
**Solubility:** Soluble in water\*  
**Storage:** Desiccate at -20° C  
**Batch Molecular Structure:**



**Product Description:** **Potent, selective blocker of mammalian P-type voltage-dependent calcium channels ( $K_D = 2$  nM). The Toxin is found in the venom of the funnel web spider (*Agelenopsis aptera*). Displays low-affinity blockade of neuronal N-type Ca<sup>2+</sup> channels.**

\*This vial contains exactly 0.11 mg (21 nmol). Solutions: Do not remove cap. Inject 210  $\mu$ l of distilled water into the vial using a calibrated syringe. This procedure furnishes a 0.1 mM solution of the titled compound.

**References:** 1. Turner et al. (1992) Science 258:310; 2. Mintz et al. (1992) Neuron 9:85; 3. Mintz et al. (1992) Nature 355:827; 4. Sidach and Mintz (2000) J Neurosci 20:7174

- CAUTION - Not fully tested. For Research use only. Not for human use. -

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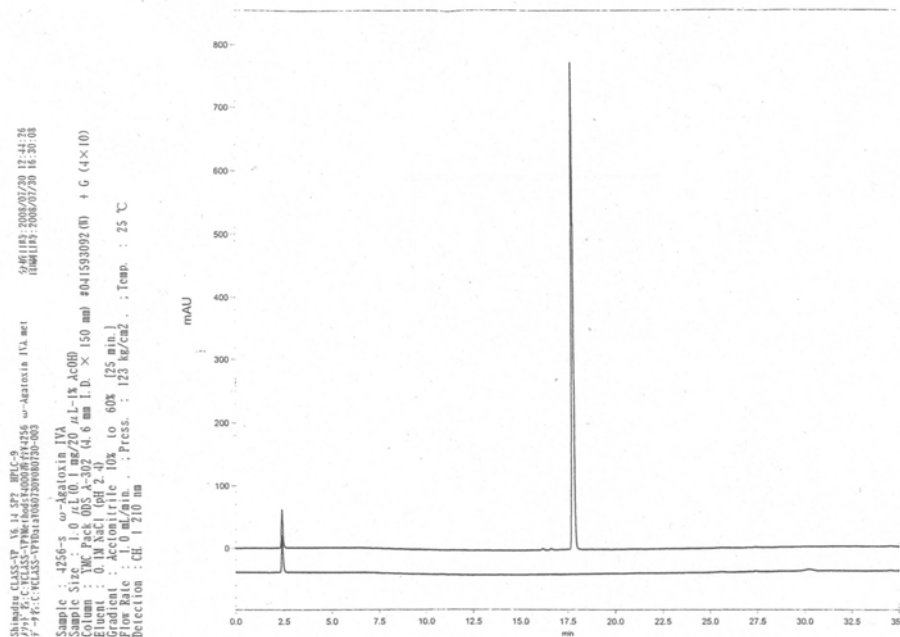
**BP0022 ω-Agatoxin IVa**

**2. ANALYTICAL DATA**

HPLC: corresponds to the reference

MS: corresponds to the reference

Tests: Specific optical rotation:  $-44.7^\circ$  ( $[\alpha]_D$ , c = 0.16, solvent = 1% AcOH) (complies);  
 HPLC Assay: > 98% (complies).



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