

## Certificate Of Analysis

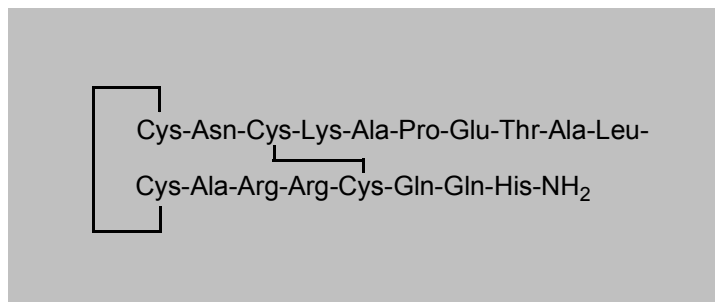
### Quality Control Testing and Research Application

COA Preparation Date: 28/11/2014  
COA Revision Date: 28/11/2017

**Product:** Apamin  
**Cat. No.:** BP0038  
**Batch No.:** 0038BP/05  
**Chemical Name:**

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>79</sub>H<sub>131</sub>N<sub>31</sub>O<sub>24</sub>S<sub>4</sub>  
**Batch Molecular Weight:** 2027.34  
**CAS No.:** [24345-16-2]  
**Physical Appearance:** White lyophilised solid  
**Melting Point:**  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Desiccate at -20° C  
**Batch Molecular Structure:**



**Product Description:** **Highly selective and potent small-conductance Ca<sup>2+</sup>-activated K<sup>+</sup>-channel (SK<sub>Ca</sub>) inhibitor. The only polypeptide neurotoxin that is known to pass the blood-brain barrier. Blocks medium after-hyperpolarisation *in vitro* and is convulsive *in vivo*.**

**References:** 1. Habermann (1984) *Pharmac Ther* 25:255; 2. Strong (1990) *Pharmac Ther* 46:137; 3. van der Staay et al. (1999) *Neurosci Biobehav Rev* 23:1087; 4. Stocker et al. (2004) *Toxicol* 43:933

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

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**BP0038 Apamin**

**2. ANALYTICAL DATA**

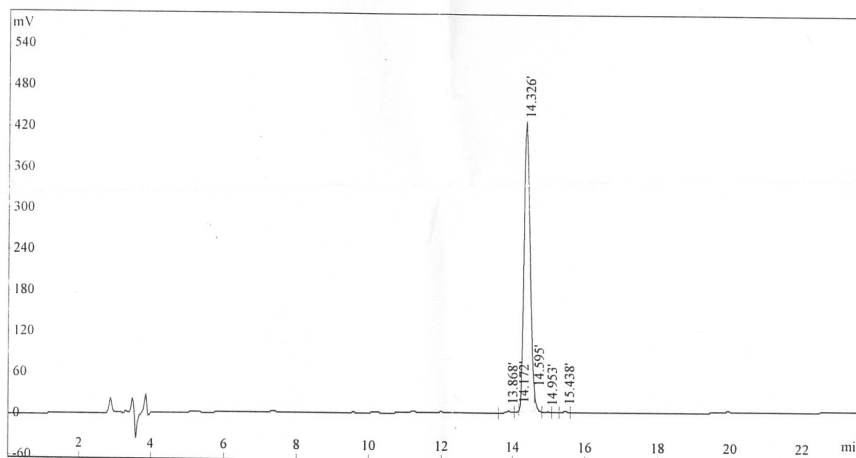
HPLC: corresponds to the reference

MS: corresponds to the reference

Tests: Counter Ion: Trifluoroacetate; HPLC Assay: 97.15% (complies).

Column : 4.6\*250mm, VYDAC-C18  
 Solvent A : 0.1%Trifluoroacetic in 100% Acetonitrile  
 Solvent B : 0.1%Trifluoroacetic in 100% Water  
 Gradient : A B  
 0.01min 40% 60%  
 25min 65% 35%  
 25.01min 100% 0%  
 30min Stop  
 Flow rate : 1.0ml/min  
 Wavelength : 220nm  
 Volume : 20ul

File opened: E:\2013\201302\315087-F-40-65-20130326(00017, 14;38;55).hw, where



Rank	Time	Conc.	Area
1	13.868	0.4690	24281
2	14.172	0.2836	14685
3	14.326	97.1506	5030105
4	14.595	1.5313	79283
5	14.953	0.2297	11895
6	15.438	0.3358	17387
Total		100	5177636

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