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Print Date: Jan 14th 2016

Certificate of Analysis

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Product Name: **Angiotensin A** **Catalog No.: 5335** **Batch No.: 1**
CAS Number: 51833-76-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{49}H_{71}N_{13}O_{10}$
Batch Molecular Weight:	1002.18
Physical Appearance:	White lyophilised solid
Net Peptide Content:	70%
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Ala-Arg-Val-Tyr-Ile-His-Pro-Phe

2. ANALYTICAL DATA

HPLC:	Shows 99% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	1.00	0.96	Lys		
Arg	1.00	1.06	Met		
Asx			Phe	1.00	1.02
Cys			Pro	1.00	0.99
Glx			Ser		
Gly			Thr		
His	1.00	0.96	Trp		
Ile	1.00	0.95	Tyr	1.00	1.01
Leu			Val	1.00	1.05

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Product Name: **Angiotensin A** **Catalog No.: 5335** **Batch No.: 1**

CAS Number: 51833-76-2

Description:

Potent endogenous vasoconstrictor peptide; derivative of angiotensin (Ang) II. Elicits pressor and renal vasoconstrictor effects in rodents via the AT_1 receptor; inhibited by Candesartan (Cat. No. 4791) but not by AT_2 receptor ligands in vivo. Displays a similar affinity for AT_1 and AT_2 receptors as angiotensin II in vitro (K_i values are 1.6 and 2.3 nM at AT_1 and AT_2 receptors); also increases inositol phosphate accumulation with a similar potency to Ang II (EC_{50} = 6.7 nM).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{49}H_{71}N_{13}O_{10}$

Batch Molecular Weight: 1002.18

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ala-Arg-Val-Tyr-Ile-His-Pro-Phe

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

Net Peptide Content: 70% (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 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:

Yang *et al* (2011) Pressor and renal hemodynamic effects of the novel angiotensin A peptide are angiotensin II type 1A receptor dependent. Hypertension ***57*** 956. PMID: 21464395.

Coutinho *et al* (2013) Cardiovascular effects of angiotensin A: A novel peptide of the renin-angiotensin system. J.Renin Angiotensin Aldosterone Syst. ***15*** 480. PMID: 23386282.

Villela *et al* (2014) Alamandine: a new member of the angiotensin family. Curr.Opin.Nephrol.Hypertens. ***23*** 130. PMID: 24389733.

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