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Print Date: Jan 24th 2019

Certificate of Analysis

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Product Name: **CGP 42112** **Catalog No.: 2569** **Batch No.: 6**

CAS Number: 127060-75-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{52}H_{69}N_{13}O_{11}$
Batch Molecular Weight:	1052.2
Physical Appearance:	White lyophilised solid
Net Peptide Content:	67%
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	*N*-α-Nicotinoyl-Tyr-Lys-(*N*-α-Z-Arg)-His-Pro-Ile

2. ANALYTICAL DATA

HPLC:	Shows 99.9% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	1.00	0.98
Arg	1.00	1.00	Met		
Asx			Phe		
Cys			Pro	1.00	1.02
Glx			Ser		
Gly			Thr		
His	1.00	0.99	Trp		
Ile	1.00	1.02	Tyr	1.00	1.00
Leu			Val		

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CAS Number: 127060-75-7

Description:

Selective, high affinity angiotensin AT_2 receptor ligand (K_i = 0.24 nM). Displays agonistic properties at proximal tubule AT_2 receptors, causes Na^+, K^+-ATPase inhibition and sodium excretion. Antagonizes Ang-II induced contractions in rabbit aortic rings (IC_{50} = 1850 nM).

Physical and Chemical Properties:

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Batch Molecular Weight: 1052.2

Physical Appearance: White lyophilised solid

Peptide Sequence:

N-α-Nicotinoyl-Tyr-Lys-(*N*-α-Z-Arg)-His-Pro-Ile

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: 67% (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:

Hakam and Hussain (2006) Angiotensin II AT_2 receptors inhibit proximal tubular Na^+-K^+-ATPase activity via a NO/cGMP-dependent pathway. Am.J.Physiol.Renal Physiol. ***290*** F1430. PMID: 16380464.

Naveri (1995) The role of angiotensin receptor subtypes in cerebrovascular regulation in the rat. Acta.Physiol.Scand.Suppl. ***630*** 1. PMID: 8610501.

Criscione *et al* (1990) Binding characteristics and vascular effects of various angiotensin II antagonists. J.Cardiovas.Pharmacol. ***16*** (Suppl. 4) S56.