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TOCRIS

Print Date: Feb 28th 2024

Certificate of Analysis

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Product Name: **CGP 2112** **Catalog No.: 25** **Batch No.:**

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

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

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

2. ANALYTICAL DATA

HPLC: Shows 98.7% 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	1.01
Glx			Ser		
Gly			Thr		
His	1.00	0.99	Trp		
Ile	1.00	1.02	Tyr	1.00	1.00
Leu			Val		

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

Product Name: **CGP 2112**

Catalog No.: 25

CAS Number: 127060-75-7

Description:

CGP 42112 is a 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: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and 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.

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:

Ha am 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. ***2 0*** 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. ***6*** (Suppl. 4) S56.

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

North America
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China
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