

Certificate of Analysis

Print Date: May 6th 2025

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Product Name: Klotho-derived peptide 6 Catalog No.: 7847 Batch No.: 1

2102414-23-1 CAS Number:

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{159}H_{232}N_{46}O_{44}$

Batch Molecular Weight: 3491.87

White lyophilised solid **Physical Appearance:**

TFA Counter Ion:

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Gln-Pro-Val-Val-Thr-Leu-Tyr-His-Trp-Asp-

> Leu-Pro-Gln-Arg-Leu-Gln-Asp-Ala-Tyr-Gly-Gly-Trp-Ala-Asn-Arg-Ala-Leu-Ala-Asp-His

2. ANALYTICAL DATA

HPLC: Shows 94.2% purity

Consistent with structure Mass Spectrum:

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Product Information

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CAS Number: 2102414-23-1

Description:

Klotho-derived peptide 6 is a β -catenin signaling inhibitor. Binds to and sequesters Wnt ligands in vitro; prevents expression of Wnt1-induced fibronectin and α -smooth muscle action. In an in vivo mouse model of diabetic kidney disease, Klotho-derived peptide 6 reduces kidney injury, improves survival and prevents accumulation of fibronectin and collagen IV in glomeruli.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₅₉H₂₃₂N₄₆O₄₄ Batch Molecular Weight: 3491.87

Physical Appearance: White lyophilised solid

Peptide Sequence:

Gln-Pro-Val-Val-Thr-Leu-Tyr-His-Trp-Asp-Leu-Pro-Gln-Arg-Leu-Gln-Asp-Ala-Tyr-Gly-Gly-Trp-Ala-Asn-Arg-Ala-Leu-Ala-Asp-His 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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Chen *et al* (2022) Klotho-derived peptide 6 ameliorates diabetic kidney disease by targeting Wnt/β-catenin signaling. Kidney Int. *102* 506. PMID: 35644285.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use