bio-techne
TOCRIS

Print Date: Nov 27th 2025

Certificate of Analysis

www.tocris.com

Product Name: Klotho-derived peptide 1 **Catalog No.:** 7830 **Batch No.:** 3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{149}H_{203}N_{39}O_{43}$
Batch Molecular Weight:	3228.48
Physical Appearance:	White lyophilised solid
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Phe-Gln-Gly-Thr-Phe-Pro-Asp-Gly-Phe-Leu-Trp-Ala-Val-Gly-Ser-Ala-Ala-Tyr-Gln-Thr-Glu-Gly-Gly-Trp-Gln-Gln-His-Gly-Lys-Gly

2. ANALYTICAL DATA

HPLC:	Shows 97.5% purity
Mass Spectrum:	Consistent with structure

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: Klotho-derived peptide 1 **Catalog No.:** 7830 **Batch No.:** 3

Description:

Klotho-derived peptide 1 (KP1) is a peptide that binds to TGF-β receptor 2 (TβR2) (K_d = 1.4 μM). It inhibits TGF-β signaling by blocking TGF-β/TβR2 interaction. In mouse models of renal fibrosis, intravenous injection of KP1 results in its specific accumulation in the injured kidneys. It suppresses TGF-β signaling, repressing fibroblast activation and ameliorates kidney fibrosis in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{149}H_{203}N_{39}O_{43}$

Batch Molecular Weight: 3228.48

Physical Appearance: White lyophilised solid

Peptide Sequence:

Phe-Gln-Gly-Thr-Phe-Pro-Asp-Gly-Phe-Leu-Trp-Ala-Val-Gly-Ser-Ala-Ala-Tyr-Gln-Thr-Glu-Gly-Gly-Trp-Gln-Gln-His-Gly-Lys-Gly

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:

Yuan *et al* (2022) A Klotho-derived peptide protects against kidney fibrosis by targeting TGF-β signaling. Nat.Commun. ***13*** 438. PMID: 35064106.