

PRODUCT INFORMATION



Klotho-derived Peptide 1 (56-87) (human) (trifluoroacetate salt)

Item No. 38166

Synonym:	KP1 (56-87)	
Peptide Sequence:	FQGTFPDGLWAVGSAAYQTEGGWQQHGKG-OH	H-Phe-Gln-Gly-Thr-Phe-Pro-Asp-Gly-Phe-Leu-
MF:	$C_{149}H_{203}N_{39}O_{43} \cdot XCF_3COOH$	Trp-Ala-Val-Gly-Ser-Ala-Ala-Tyr-Gln-Thr-
FW:	3,228.4	Glu-Gly-Gly-Trp-Gln-Gln-His-Gly-Lys-Gly-OH
Purity:	≥95%	
Supplied as:	A solid	• XCF ₃ COOH
Storage:	-20°C	
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Klotho-derived peptide 1 (KP1) (56-87) (human) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the KP1 (56-87) (human) (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

KP1 (56-87) is a peptide derived from human Klotho protein, which has roles in disrupting TGF- β signaling.¹ It binds to TGF- β receptor type 1 (TGFBR2), and TGF- β receptor type 2 (TGFBR2; K_d s = 1.41 and 14.6 μ M, respectively). Preincubation with KP1 (10 μ g/ml) inhibits TGF- β -induced increases in fibronectin and α -smooth muscle actin (α -SMA) levels in NRK-49F rat fibroblasts. *In vivo*, KP1 (1 mg/kg per day) selectively localizes to damaged kidneys and reduces serum creatine and blood urea nitrogen levels, markers of kidney function, as well as reduces kidney fibrosis, in mouse models of unilateral ureteral obstruction (UUO) and unilateral ischemia-reperfusion injury-induced renal fibrosis.

Reference

1. Yuan, Q., Ren, Q., Li, L., *et al.* A Klotho-derived peptide protects against kidney fibrosis by targeting TGF- β signaling. *Nat. Commun.* **13**(1), 438 (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 07/25/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM