

Product Datasheet

Klotho-derived Peptide 1 (56-87) (human) TFA (orb1980033)

Description	Klotho-derived peptide 1 (KP1) (56-87), a peptide originating from the human Klotho protein, disrupts TGF- β signaling by binding to TGF- β receptor types 1 and 2 (TGFR1 and TGFR2; Kds = 1.41 and 14.6 μ M, respectively). Preincubation with KP1 at a concentration of 10 μ g/ml hinders the TGF- β -induced escalation of fibronectin and α -smooth muscle actin (α -SMA) levels in NRK-49F rat fibroblasts. Furthermore, in vivo studies reveal that KP1, administered at 1 mg/kg per day, preferentially accumulates in damaged kidneys, leading to significant reductions in serum creatinine and blood urea nitrogen levels, indicators of improved kidney function. Additionally, it decreases kidney fibrosis in mouse models of unilateral ureteral obstruction (UUO) and unilateral ischemia-reperfusion injury-induced renal fibrosis.
Storage	-20°C
Note	For research use only
Formula	C ₁₄₉ H ₂₀₃ N ₃₉ O ₄₃ .XCF ₃ COOH
Purity	98.00%
MW	3228.44
SMILES	[H]N[C@H](C(N[C@@H](CCC(N)=O)C(NCC(N[C@]([C@@H](C)O)([H])C(N[C@H](C(N1CCC[C@H]1C(N[C@H](C(NCC(N[C@H](C(N[C@@H](CC(C)C)C(N[C@H](C(N[C@@H](C(N[C@@H](C(C)C)C(NCC(N[C@@H](CO)C(N[C@H](C(N[C@H](C(N[C@@H](CCC(N)=O)C(N[C@]([C@@H](C)O)([H])C(N[C@@H](CCC(O)=O)C(NCC(NCC(N[C@H](C(N[C@@H](CCC(N)=O)C(N[C@@H](CCC(N)=O)C(N[C@H](C(NCC(N[C@@H](CCCCN)C(NCC(O)=O)=O)=O)=O)CC2=CN=CN2)=O)=O)CC3=CNC4=C3C=CC=C4)=O)=O)=O)=O)=O)CC5=CC=C(O)C=C5)=O)C)=O)C)=O)=O)CC6=CNC7=C6C=CC=C7)=O)=O)CC8=CC=CC=C8)=O)=O)CC(O)=O)=O)CC9=CC=CC=C9)=O)=O)=O)CC%10=CC=CC=C%10.FC(F)(C(O)=O)F
Expiration Date	12 months from date of receipt.

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