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Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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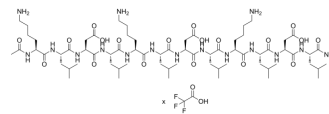
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KLD-12 TFA

Cat. No.:	HY-P2263A
Molecular Formula:	C ₆₈ H ₁₂₂ N ₁₆ O ₁₉ ·xC ₂ HF ₃ O ₂
Sequence:	Ac-Lys-Leu-Asp-Leu-Lys-Leu-Asp-Leu-Lys-Leu-Asp-Leu-NH ₂
Sequence Shortening:	Ac-KLDLKLDKLDDL-NH ₂
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (Need ultrasonic)
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BIOLOGICAL ACTIVITY

Description	KLD-12 TFA is the TFA salt form of KLD-12 (HY-P2263). KLD-12 TFA is a self a 12-residue self-assembling peptide that is used in tissue-engineering. KLD-12 TFA combined with SDF-1 self-assembled polypeptide enhances chondrogenic differentiation of bone marrow stromal cells (BMSCs). KLD-12 TFA hydrogel can fill full-thickness osteochondral defects in situ and improve cartilage repair ^{[1][2][3]} .	
In Vitro	KLD-12 TFA forms self-assembled polypeptide with SDF-1, improves the survival of bone marrow stromal cells (BMSCs), promotes osteogenic differentiation of BMSCs and cell migration through Wnt/ β -catenin pathway ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	KLD-12 TFA (10-250 μ g/rat, single dose, injection to infracture site) promotes bone regeneration at the fracture site in a dose-dependent manner in Sprague-Dawley rats model with drill-hole injury in femur ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Sprague-Dawley rats model with drill-hole injury in femur ^[2]
	Dosage:	10-250 μ g/rat
	Administration:	injection to the fracture site, single dose
	Result:	Increased osteoinduction and callus formation.

REFERENCES

[1]. Cao M, et al., Self-Assembled KLD-12/SDF-1 Polypeptide Promotes Differentiation and Migration of BMSCs via the Wnt/ β -catenin Signaling Pathways. Protein Pept Lett.

2022;29(10):851-858.

[2]. Tripathi JK, et al., Variants of self-assembling peptide, KLD-12 that show both rapid fracture healing and antimicrobial properties. *Biomaterials*. 2015 Jul;56:92-103.

[3]. Kisiday J, Jet al., Self-assembling peptide hydrogel fosters chondrocyte extracellular matrix production and cell division: implications for cartilage tissue repair. *Proc Natl Acad Sci U S A*. 2002 Jul 23;99(15):9996-10001.

Caution: Product has not been fully validated for medical applications. For research use only.

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