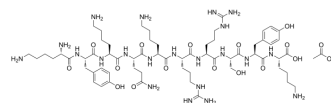


Selcopintide acetate

Cat. No.:	HY-P3386A
Molecular Formula:	C ₆₄ H ₁₀₉ N ₂₁ O ₁₇
Molecular Weight:	1444.68
Sequence:	Lys-Tyr-Lys-Gln-Lys-Arg-Arg-Ser-Tyr-Lys
Sequence Shortening:	KYKQKRRSYK
Target:	Others
Pathway:	Others
Storage:	Stored under nitrogen, away from moisture
	Powder -80°C 2 years
	-20°C 1 year



* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (69.22 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		0.6922 mL	3.4610 mL	6.9219 mL
	5 mM		0.1384 mL	0.6922 mL	1.3844 mL
	10 mM		0.0692 mL	0.3461 mL	0.6922 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Selcopintide (Cpne7-DP) acetate consists of a synthetic peptide corresponding to the 10 amino acid residue 344-353 fragment of the hCPNE7 protein. Selcopintide acetate highly reproduces the in vitro effects of CPNE7 by upregulating odontoblast marker genes, DSPP, and Nestin. Selcopintide acetate promotes dentin regeneration in dentinal defects of various degrees and that the regenerated hard tissue demonstrates the characteristics of true dentin^[1].

In Vitro

Selcopintide (Cpne7-DP) acetate directly penetrates odontoblastic cell (MDPC-23 cells)^[1]. Selcopintide (1, 10 µg) acetate increases dspp promoter activity in a dose-dependent manner^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Selcopintide (Cpne7-DP; human DPCs with 10 µg subcutaneous transplantation in a 0.5% fibrin gel) acetate promotes dentin-like tissue formation and the regeneration of tubular dentin and dentinal tubule occlusion in shallow and deep cavity models^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Immunocompromised mice (NIH-bg-nu-xid) ^[1]
Dosage:	10 µg
Administration:	Subcutaneous transplantation in a 0.5% fibrin gel
Result:	Promotes dentin-like tissue formation. Promotes the regeneration of tubular dentin and dentinal tubule occlusion in shallow and deep cavity models.

REFERENCES

[1]. Lee YS, et al. Tubular Dentin Regeneration Using a CPNE7-Derived Functional Peptide. *Materials (Basel)*. 2020;13(20):4618. Published 2020 Oct 16.

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

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