

## Pal-KTTKS (acetate)

## Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

## Biological Description

Description	Pal-KTTKS is a lipidated pentapeptide consisting of a fragment of the type I collagen C-terminal propeptide conjugated to palmitic acid .1 It increases collagen production in human corneal and dermal fibroblasts when used at concentrations of 0.002, 0.004, and 0.008 wt%.2 Following topical administration, pal-KTTKS (50 µg/cm <sup>2</sup> ) is found in the stratum corneum, epidermis, and dermis of isolated hairless mouse skin.1 It can self-assemble into flat tapes and extended fibrillar structures.3 Pal-KTTKS has been detected in anti-wrinkle creams.4
Targets(IC50)	Others

## Solubility Information

Solubility	PBS (pH 7.2): 10 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Reference

- Choi, Y.L., Park, E.J., Kim, E., et al. Dermal stability and in vitro skin permeation of collagen pentapeptides (KTTKS and palmitoyl-KTTKS). *Biomol. Ther. (Seoul)* 22(4), 321-327 (2014).
- Jones, R.R., Castelletto, V., Connon, C.J., et al. Collagen stimulating effect of peptide amphiphile C16-KTTKS on human fibroblasts. *Mol. Pharm.* 10(3), 1063-1069 (2013).
- Castelletto, V., Hamley, I.W., Whitehouse, C., et al. Self-assembly of palmitoyl lipopeptides used in skin care products. *Langmuir* 29(29), 9149-9155 (2013).
- Chirita, R.-I., Chaimbbault, P., Archambault, J.-C., et al. Development of a LC-MS/MS method to monitor palmitoyl peptides content in anti-wrinkle cosmetics. *Anal. Chim. Acta* 641(1-2), 95-100 (2009).

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