

PRODUCT INFORMATION



Pal-KTTKS (trifluoroacetate salt)

Item No. 45776

Formal Name: palmitoyl-L-lysyl-L-threonyl-L-threonyl-L-lysyl-L-serine, trifluoroacetate salt

Synonyms: C₁₆-KTTKS, Palmitoyl-KTTKS, Palmitoyl-Lys-Thr-Thr-Lys-Ser, Palmitoyl Pentapeptide-4

Peptide Sequence: Pal-KTTKS-OH

MF: C₃₉H₇₅N₇O₁₀ • XCF₃COOH

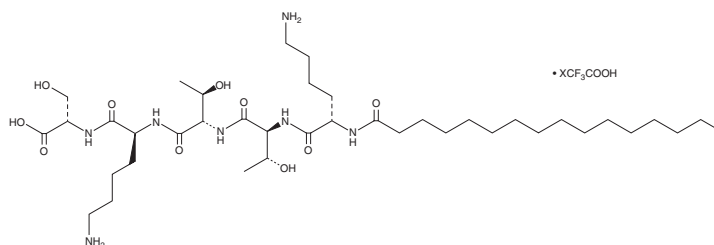
FW: 802.1

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

Pal-KTTKS (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the pal-KTTKS (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Pal-KTTKS (trifluoroacetate salt) is slightly soluble (0.1-1 mg/ml) in acetonitrile:water (1:1).

Description

Pal-KTTKS is a lipidated pentapeptide consisting of a fragment of the type I collagen C-terminal propeptide conjugated to palmitic acid (Item Nos. 10006627 | 43561).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/cm²) 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 Formulations containing pal-KTTKS have been used in anti-aging cosmetics.

References

1. 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).
2. 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).
3. 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).

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.

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