

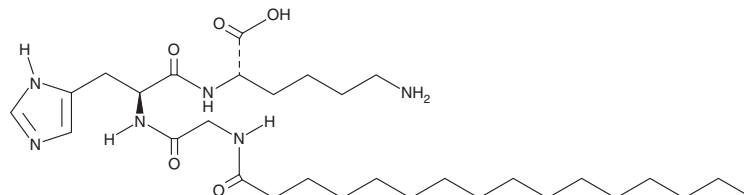
PRODUCT INFORMATION



Pal-GHK

Item No. 27059

CAS Registry No.: 147732-56-7
Formal Name: N-(1-oxohexadecyl)glycyl-L-histidyl-L-lysine
Synonyms: C₁₆-GHK, C₁₆-GK-3, Palmitoyl Oligopeptide, Palmitoyl Tripeptide-1
MF: C₃₀H₅₄N₆O₅
FW: 578.8
Purity: ≥95%
UV/Vis.: λ_{max}: 283 nm
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-GHK is supplied as a solid. A stock solution may be made by dissolving the pal-GHK in the solvent of choice, which should be purged with an inert gas. Pal-GHK is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pal-GHK in ethanol and DMF is approximately 30 mg/ml and approximately 10 mg/ml in DMSO.

Description

Pal-GHK is a form of the extracellular matrix-derived peptide GHK (Item No. 27168) containing palmitic acid (Item No. 10006627), which allows it to penetrate the stratum corneum to the epidermal and dermal skin layers.¹ Pal-GHK (0.5 μM) increases collagen synthesis in human skin fibroblasts *in vitro*. It reduces collagen degradation *ex vivo* in patient-derived human skin samples irradiated with UVA light when used at a concentration of 6 ppm. It has been used with the zwitterionic surfactant C₁₂ dodecyltrimethylammonium chloride (C₁₂DMAO) to study self-assembly of the mixture into aggregates, ribbons, and nanobelts.^{2,3} Pal-GHK has also been used as an internal standard for the quantification of pal-KTTKS in anti-wrinkle creams by LC-MS/MS.⁴

References

1. Lintner, K. and Peschard, O. Biologically active peptides: From a laboratory bench curiosity to a functional skin care product. *Int. J. Cosmet. Sci.* **22**(3), 207-218 (2000).
2. Zhang, H., Sun, J., Xin, X., *et al.* Modulating self-assembly behavior of a salt-free peptide amphiphile (PA) and zwitterionic surfactant mixed system. *J. Colloid. Interface Sci.* **467**, 43-50 (2016).
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).
4. Chirita, R.-I., Chaibbault, 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).

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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