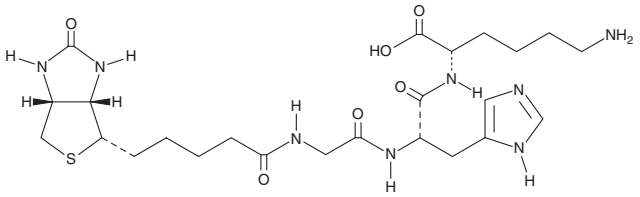
PRODUCT INFORMATION

Biotin Tripeptide-1

Item No. 27153

CAS Registry No.: 299157-54-3
Formal Name: N-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl] glycyl-L-histidyl-L-lysine
Synonyms: Biotinoyl Tripeptide-1, Biotinyl-GHK, Biotinyl-Gly-His-Lys
MF: $C_{24}H_{38}N_8O_6S$
FW: 566.7
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

Biotin tripeptide-1 is supplied as a solid. A stock solution may be made by dissolving the biotin tripeptide-1 in the solvent of choice, which should be purged with an inert gas. Biotin tripeptide-1 is soluble in the organic solvent DMSO at a concentration of approximately 5 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of biotin tripeptide-1 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of biotin tripeptide-1 in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Biotin tripeptide-1 is an extracellular matrix (ECM) peptide that has been conjugated to biotin (Item No. 22582).[1] It stimulates the production of collagen IV and laminin in dermal and epidermal cells *ex vivo*. Biotin tripeptide-1 localizes to the peri-pilial zone of isolated cultured human hair follicles, induces proliferation of keratinocytes, and increases hair growth by 58 and 121% compared with control follicles when used at concentrations of 2 and 5 ppm, respectively.[2] It also prevents decreases in the collagen IV and laminin 5 bands of isolated cultured hair follicles.

References

1. Gorouhi, F. and Maibach, H.I. Role of topical peptides in preventing or treating aged skin. *Int. J. Cosmet. Sci.* **31(5),** 327-345 (2009).
2. Lintner, K. and Maschamberlin, C. Formulations and method for treating baldness. *Sederma Sas*. **US2006/0067905A1** (2006).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM