

beta-Defensin-3, human

PRODUCT DESCRIPTION

beta-Defensin-3, human is a 78-amino-acid A peptide related to the cathelicidin/LL-37 family of host defense peptides (antimicrobial peptides, AMPs). These peptides exhibit broad-spectrum antimicrobial activity against bacteria, fungi, and viruses, and modulate innate immune responses including chemotaxis, cytokine production, and wound healing. Used in infectious disease and immunology research for studying antimicrobial mechanisms and immune modulation.

PRODUCT SPECIFICATIONS

Catalog Number	BPT0445
Molecular Weight	5155.0992 Da
Molecular Formula	C216H371N75O59S6
Purity	Peak Area by HPLC >=95%
Form	Lyophilized
Source	Synthetic (Chemical Synthesis, SPPS)
Endotoxin	N/A (Synthetic peptide)

AMINO ACID SEQUENCE

One-Letter Code:

GIINTLQKYYCRVRGGRC AVL SCLPK EEQIGK CSTRGRKCCRRKK(Disulfidebridge:Cys11-Cys40,Cys18-Cys33,Cys23-Cys41)

Three-Letter Code:

H-Gly-Ile-Ile-Asn-Thr-Leu-Gln-Lys-Tyr-Tyr-Cys-Arg-Val-Arg-Gly-Gly-Arg-Cys-Ala-Val-Leu-Ser-Cys-Leu-Pro-Lys-Glu-Glu-Gln-Ile-Gly-Lys-Cys-Ser-Thr-Arg-Gly-Arg-Lys-Cys-Cys-Arg-Arg-Lys-Lys-OH(Disulfidebridge:Cys11-Cys40,Cys18-Cys33,Cys23-Cys41)

RESEARCH APPLICATIONS

Application	Antimicrobial activity
Biomarker Target	Host Defense Peptide
Research Area	Immunology
Sub-category	Antimicrobial Peptides & Innate Immunity

STORAGE & HANDLING

Storage Temperature	-20 deg C
Form	Lyophilized
Stability	Lyophilized product stable for 24 months at -20 deg C
Reconstitution	Reconstitute in sterile water or appropriate buffer
After Reconstitution	Aliquot and store at -20 to -80 deg C
Avoid	Repeated freeze-thaw cycles

AVAILABLE SIZES

Size Options	1 mg, 10 mg
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Usage

Research use

QUALITY CONTROL

Purity Method

HPLC, Mass Spectrometry (MS)

Identity

Confirmed by ESI-MS or MALDI-TOF

Purity

Peak Area by HPLC $\geq 95\%$

Documentation

Certificate of Analysis (CoA) available upon request