

alpha-Defensin-1, human

PRODUCT DESCRIPTION

alpha-Defensin-1, human is a 69-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	BPT0457
Molecular Weight	3928.4909 Da
Molecular Formula	C167H256N48O50S6
Purity	Peak Area by HPLC >=95%
Form	Lyophilized
Source	Synthetic (Chemical Synthesis, SPPS)
Endotoxin	N/A (Synthetic peptide)

AMINO ACID SEQUENCE

One-Letter Code:

DHYNCVSSGGQCLYSACPIFTKIQTGYRGKAKCCK(Disulfidebridge:Cys5-Cys34,Cys12-Cys27,Cys17-Cys34)

Three-Letter Code:

H-Asp-His-Tyr-Asn-Cys-Val-Ser-Ser-Gly-Gly-Gln-Cys-Leu-Tyr-Ser-Ala-Cys-Pro-Ile-Phe-Thr-Lys-Ile-Gln-Gly-Thr-Cys-Tyr-Arg-Gly-Lys-Ala-Lys-Cys-Cys-Lys-OH(Disulfidebridge:Cys5-Cys34,Cys12-Cys27,Cys17-Cys34)

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
Usage	Research use

QUALITY CONTROL

Purity Method	HPLC, Mass Spectrometry (MS)
Identity	Confirmed by ESI-MS or MALDI-TOF
Purity	Peak Area by HPLC >=95%
Documentation	Certificate of Analysis (CoA) available upon request