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Tables from: Luo Y, Song Y. Mechanism of Antimicrobial Peptides: Antimicrobial, Anti-Inflammatory and Antibiofilm Activities. Int J Mol Sci. 2021 Oct 22;22(21):11401. doi: 10.3390/ijms222111401. PMID: 34768832; PMCID: PMC8584040.

Table 2. Summary of the targets, typical AMPs, and specific action modes of AMPs.

Specific Mechanism of Action	AMPs	Action Site	References
Induce degradation of genomic DNA and total RNA	TO17	Nucleic acid	[96]
Bind with nucleic acids and finally inhibit the synthesis of DNA, RNA, and proteins	Buforin-2 and indolicidin	Nucleic acid	[100,101]
Bind with nucleic acids	A series of derived peptides, such as HPA3NT3-A2, MBP-1, IARR-Anal10, and KW4	Nucleic acid	[40,94,102,103]
Bind to RNA polymerase and inhibit the activity of RNA polymerase	Microcin J25 and capistruin	Nucleic acid synthetases	[95]

Act on the termination process of translation. Inhibit protein synthesis by capturing the release factor on the 70S ribosome after hydrolysis of the new polypeptide chain	Apidaecin 1b and Api137	Ribosome	[39]
Transfer of aa-tRNA from EF-Tu to ribosome; a site blocked to inhibit protein synthesis	Bac7, Onc112, pyrrhocoricin, and metalnikowin	Ribosome	[39]
Inhibit the protein synthesis of 70S ribosome and interact with DnaK to inhibit the necessary ATPase activity or protein folding activity	Bac7	Molecular chaperone DnaK	[77]
Inhibit DnaK activity	Abaecin	Molecular chaperone DnaK	[97]
Affect cell cycle, inhibit DNA synthesis, and prevent cell division	Indolicidin	Nucleic acid; cell division	[101]
Affect cell cycle and inhibit cell division	HD5ox	Cell division	[98]
Destruct organelles and inhibit mitochondrial respiration to destroy mitochondria	His-rich AMPs	Mitochondria	[42]
Inhibit the activity of energy metabolism proteins to affect energy metabolism	Magainin 1	Energy metabolism protein	[99]

Table 3. AMPs with antibiofilm activity, including the strains and modes of action.

AMPs	Microorganisms	Mechanism of Action	References
LL-37	Pseudomonas aeruginosa	Inhibit bacterial adhesion; disruption of cell signaling system	[126]
DJK5 and DJK6	Pseudomonas aeruginosa	Suppress the alarm system	[131,132]
1081	A series of G+ and G−(Pseudomonas aeruginosa, Escherichia coli, etc.)	Suppress the alarm system; eradication of mature biofilms	[130]
Human β-defensin 3	Staphylococcus epidermidis	Downregulate the expression of binding protein transport genes responsible for biofilm formation	[133,134]
1037	Pseudomonas aeruginosa	Downregulate the expression of binding protein transport genes responsible for biofilm formation	[135]
Nisin A	MRSA	Interfere with the bacterial membrane potential in the biofilm	[125]
Esculentin (1–21)	Pseudomonas aeruginosa	Interfere with the bacterial membrane potential in the biofilm	[137]
G3	Streptococcus mutans	Inhibit bacterial adhesion; degrade EPSs	[141]
P1	Streptococcus mutans	Degrade EPSs	[138]

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