

عنوان مقاله:

.A review of antimicrobial plant peptides and their application in pharmaceutical science and agricultural science

محل انتشار:

نهمین کنفرانس بین المللی مهندسی کشاورزی، منابع طبیعی و محیط زیست (سال: 1402)

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خلاصه مقاله:

Antimicrobial peptides are part of the defense system of plants which are synthesized during secondary metabolic cycle in medicinal plants. Antimicrobial peptides of plants were grouped on the basis of positive charge, presence of disulfide bonds in several plants. Most of the natural antimicrobial peptides have a length between 10 and 50 amino acids, their size is from 2 to 9 kilodaltons, they have a positive charge, and they contain highly hydrophobic amino acids and often have helical structure (helices). The set of antimicrobial peptides that are synthesized by plants according to the homology of amino acid sequence including: Thionins, Puroindolines, Lipids, Snakins, Cyclotides, Heven-like proteins, Knottin and Cell-penetrating peptides. Antimicrobial plant peptides have been proved that they have had a plenty of benefits for agricultural science as a natural antibiotic against microbial pathogens and also in pharmaceutical science as a natural antibiotic as well as anticancer, although they need more research which shows the importance of antibacterial plant peptides as a natural alternative in microbial resistance.

کلمات کلیدی:

.natural antibiotics, plant peptides, antimicrobial peptides, plant pathogens

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