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Antibacterial Action of Soaps

2.4 Diverse Actions of Fatty Acids and Their Salts on Bacteria
2.5 The Nature of the Bactericidal Action of Fatty Acids; 2.6 A Possible Role of Soaps and Fatty Acids in Host Defence against Bacteria; 2.7 Studies of Prophylactic and Therapeutic Applications of Soaps and Fatty Acids; 2.8 Conclusions; References; 3 Antibacterial, Antiviral and Antifungal Activities of Lipids; 3.1 Introduction; 3.2 Antibacterial Activities of Fatty Acids and Monoglycerides; 3.2.1 Activities against Gram-Positive Bacteria In Vitro; 3.2.2 Activities against Gram-Negative Bacteria In Vitro
3.2.3 Antibacterial Mechanism
3.2.4 A Possible Role of Antimicrobial Lipids in Host Defence against Bacteria; 3.3 Antiviral Activities of Fatty Alcohols, Fatty Acids and Monoglycerides; 3.3.1 Early Studies of Antiviral Lipids; 3.3.2 Antiviral Activities of Milk Lipids; 3.3.3 Antiviral Activities of Lipids and Fatty Alcohols; 3.3.4 Antiviral Mechanism of Lipids; 3.4 Antifungal Activities of Fatty Acids and Monoglycerides; 3.4.1 In Vitro Studies; 3.4.2 In Vivo Studies; 3.5 Conclusions; References; 4 Antimicrobial Lipids in Milk; 4.1 Introduction; 4.2 Occurrence; 4.2.1 Biosynthesis
4.2.2 Quantitative Assays
4.2.2.1 Measurement of Antibacterial Activity; 4.2.2.2 Measurement of Antiviral Activity; 4.3 Molecular Properties; 4.3.1 Lipids in Milk and Plant Oils; 4.3.2 Dependence of Antimicrobial Activity on Chain Length, Saturation and pH; 4.4 Antimicrobial Activity; 4.4.1 Mechanism of Action; 4.4.2 Synergy between Antimicrobial Lipids and Antimicrobial Peptides; 4.4.2.1 Antimicrobial Peptides and Proteins; 4.4.2.2 Potential Synergism between Antimicrobial Milk Lipids and Peptides; 4.4.3 Influencing Factors; 4.4.4 Spectrum; 4.5 Applications
4.5.1 Additive Advantage to Foods and Biological Products

Sommario/riassunto

Lipids and essential oils have strong antimicrobial properties - they kill or inhibit the growth of microbes such as bacteria, fungi, or viruses. They are being studied for use in the prevention and treatment of infections, as potential disinfectants, and for their preservative and antimicrobial properties when formulated as pharmaceuticals, in food products, and in cosmetics. Lipids and Essential Oils as Antimicrobial Agents is a comprehensive review of the scientific knowledge in this field. International experts provide summaries on: the chemical and biological
