

# Antibacterial Activity of Methanolic Extracts from Commercial Microalgal Products

Shu-Chen Chang\*, Yiin-Dar Chen\*, Yao-Ling Chen\*, Tei-Chzo Wu\*,  
Tsong-Ming Lee\*, Hsiu-Hwa Hsu\*\* and Yung-Hsiang Tsai\*\*\*<sup>a</sup>

## Abstract

Six green alga products and 6 blue-green algae products sold in Taiwanese markets were selected to determine the antibacterial activity. The methanolic extracts of commercial microalgal products were assayed by disc diffusion method for their antibacterial activity against pathogens: *Staphylococcus aureus*, *Bacillus cereus*, *Escherichia coli* and *Pseudomonas aeruginosa*. None of the green alga products inhibited the four pathogens. Only 2 of the blue-green alga products (FE-S and BH-S) inhibited the growth of *S. aureus* and *B. cereus*. The minimum inhibition concentration (MIC) and minimum bactericidal concentration (MBC) of the methanolic extract from FE-S product against *S. aureus* was 25 µg/ml and against *B. cereus* was 50 µg/ml, whereas the MIC and MBC of the methanolic extract from BH-S product against *S. aureus* was 125 µg/ml.

**Keywords:** Microalgae, antibacterial activity, minimum inhibition concentration (MIC), minimum bactericidal concentration (MBC)

\* Department of Food Science and Technology, Tajen University

\*\*Department of Living Science, Tainan Woman's University of Art and Technology

\*\*\*Department of Seafood Science, National Kaohsiung Marine University

<sup>a</sup> Corresponding author