

Antimicrobial activity of *Vitis vinifera* against phytopathogenic microbes

정호승, 손석용, 윤성용¹, 박종문*
포항공과대학교 화학공학과; ¹포항공과대학교 환경연구소
(jnpark@postech.ac.kr*)

Microbial activity is responsible for the loss of quality and safety in foods. The addition of preservative is the method of increasing circulation period of foods. However, synthetic preservative have restricted usage in foods. Therefore, the importance of screening natural preservative has increased in recent years. Grapes (*Vitis vinifera*) are one of fruit crops that have many antimicrobial compounds.

In the present work, we investigated antimicrobial activity of water-soluble extracts from *Vitis vinifera* calli. The disc diffusion method and inhibition test in suspended culture were used to determine antimicrobial activity of samples. In the results, water-soluble extracts showed antimicrobial activity against three gram negative bacteria (*Agrobacterium tumefaciens*, *Escherichia coli*, and *Pseudomonas putida*), and two gram positive bacteria (*Staphylococcus aureus* and *Bacillus subtilis*). *V. vinifera* calli can be a promising candidate for a natural preservative using in the field of foods, cosmetics and pharmacology.