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자색고구마 추출물의 생리활성분석

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Biological Activities of Purple Sweet Potato Extract

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Objectives

Improve the quality of life of the people in the increasing interest in health promotion and recovery rapidly increasing elderly population, to prevent the aging of cells and inhibit cancer cell proliferation and to prevent vision loss in efficacy that has been active research on antosian. Purple sweet potato with the contained antosian biologically active analysis was conducted.

Materials and Methods

○ Material : Purple sweet potato extract

○ Method

1)Antioxidant Activitc Analysis:(1,1-Diphenyl-2-hydrazyl)radical scavenging effect Measurement

2)Fibrinolytic Activitic decomposition Analysis: Purple sweet potato to extract the active decomposition of the fibrin blood clot Analysis by a reputation for active verification

3)Impact on human cancer cells: Lung cancer(Calu-6), Stomach Cancer(Snu-601), Breast cancer (MCF-7) of MTT method for measuring cell survival

4)Antimicrobial Activity Analysis: Corruption and related food poisoning bacteria in food for 10 species of paper disc law Antimicrobial active biological measurements

Results and Discussion

Purple sweet potato using the analysis of biologically active than synthetic of antioxidant low-active and active but was higher than the natural vitamins, and blood clots, and decomposed by the active suppression effect is generated in human cancer cells, with the active biological material used as antimicrobial activity preview this was a strong possibility.

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Table 1. DPPH radical scavenging activity of Purple Sweet Potato. Their activities were compared with synthetic antioxidants, Vitamin C and BHT.

DPPH radical scavenging activity	
Sample	RC_{50}‡ (ug/mL)
Purple Sweet Potato	243.77
Vitamin C	5.68
BHT	414.68 ±0.16

† All values are expressed as mean±SD of triplicate determinations.
‡ Extract concentrations, which show 50% DPPH radical scavenging activity, were determined by interpolation.

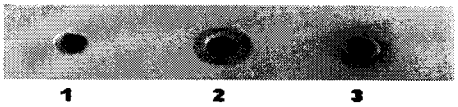

Fig. 1. Proteolytic activity from crude extracts on 0.3% skim milk agarose plate at 37℃ for 15hr. 1. 20mM Tris-HCl(pH 7.4)as negative control;2. Plasmin as positive control.; 3. Purple-fleshed sweet potato.

Fig. 2. The viability of cells was measured by MTT activities from Purple Sweet Potato extract on human cancer cells Calu-6, SNU-601, Hct-116.

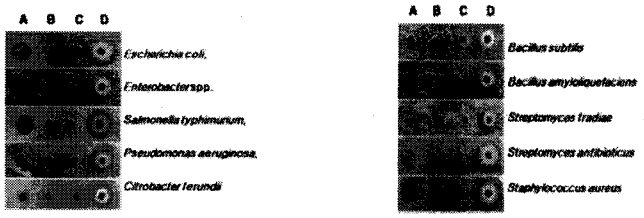

Fig. 3. Antimicrobial activities of Purple Sweet Potato.
A. 3ug/ml DP-100; B.water; C.Purple sweet potato; D.30ug/ml DP-100