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Biological Activities of Prunus persica Extracts

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Prunus persica 추출물의 생리 활성 탐색

강원대학교: 서용창, 김지선, 정명훈, 오성호, 최운용, 이현용*

Objectives

We were to seem new biological activities of Prunus persica from several extraction processes.

Materials and Methods

The seed of *Prunus persica* was extracted by water and ethanol e used. Tyrosinase and α -glucosidase inhibitory activities the extracts of the water and 70% ethanol extraction.

Results

- Tyrosinase inhibitory activites of extracts from water extraction was higher than that from ethanol extraction.
- At concentration of 1 mg/ml, the extracts by ethanol extraction showed a -glucosidase inhibitory activities as 84.3%(w/w), compound to 64.6(%, w/w) of water extraction.
- · We considered that the active compound for tyrosinase inhibition substances was better eluted in water, that α -glucosidase inhibition substances were better eluted in ethyl alcohol solvents.

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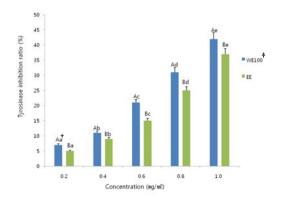


Fig. 1. Tyrosinase inhibitory activities of the extracts of *Prunus persica* by different extraction processes and concentration.

- † Mean values±SD from triplicate separated experiments shown. are Mean with difference letter (A-B)within same concentration are significantly different at p < 0.05with difference letter within same sample are significantly different at p < 0.05.
- *WE100: water extraction at 100°C; EE: 70% ethyl alcohol extraction at 60°C

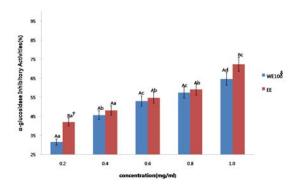


Fig. 2. α-glucosidase inhibitory activities of the extracts of *Prunus persica by* different extraction processes and concentration.

- *Mean values \pm SD from triplicate separated experiments are shown. Mean with difference letter (A-B) within same concentration are significantly different at p < 0.05 and mean with difference letter (a-d) within same sample are significantly different at p < 0.05.
- *WE100: water extraction at $100\,^{\circ}$ C; EE: 70% ethyl alcohol extraction at $60\,^{\circ}$ C.

References

Kim IC and Hur SS. (2009). Antioxidative Properties and Whitening Effects of the Astragali Radix, Atractylodis, Rhizoma, Alba and Acanthopanacis Cortex. Journal of the Korean Oil Chemists' Soc. 26(2):110–116.

Min DH, Kim DK, Lim JP, Yang JH. (2005). Transdermal drug delivery & therapeutic effect of the preparations of *Lithospermi Radix* and *Gardeniae* extracts on the burn & wound healing. J. Kor Pharm Sci. 35(4): 255–263.

Hwang SY, Hwang BY, Kang SS, Kim CM, Park JI, Bae KH, Son KH, Lee SH, Chang SY, Kang SJ, Ro JS, Lee KS. (2000). Isolation and quantitative analysis of acetylshikonin from *Lithospermi Radix*. Kor J Pharmacogn. 31(3):295–299.