

Anti-inflammatory Activity of Peel fractionation in Potato cv. Seohong

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Potatoes were first introduced outside the Andes region four centuries ago, and have become an integral part of much of the world's food. Potatoes were first introduced into Europe in the 16th century and Korea in the early 19th century. It is the world's fourth-largest crop, following rice, wheat, and maize. In the nutritional aspects, potatoes contain abundant vitamins and minerals, as well as an assortment of phytochemicals such as carotenoids and natural phenols. Chlorogenic acid constitutes up to 90% of potato natural phenols. Due to the high content of potato functional compounds, it has known that potatoes are effective in the prevention of various human diseases. Recently, potato 'Seohong' was developed by RDA, and it has reported that they have a high-yield and dry matter content. Processing industry of potato generates high amounts of peel as a byproduct. It was reported as a good source of several beneficial functional ingredients including antioxidant effect. This study was conducted to enhance the utilization of the peel of Potato 'Seohong'. The anti-inflammatory effects on solvent fraction was evaluated. The anti-inflammatory activities of Ethylacetate fraction was evaluated for inhibitory activities against lipopolysacchride (LPS) induced nitric oxide (NO) in RAW264.7 cell lines. The fraction inhibitory activity for tests with IC₅₀ values showed in the ranges of 50 µg/ml. This result revealed that *n*-butanol fraction of 'Seohong's peel is expected to be good candidate for development into source of anti-inflammatory agent.

Key words: Anti-inflammatory, NO, Seohong, Potato peel, *n*-butanol fraction