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**Isolation of  $\alpha$ -glucosidase inhibitor, genistein from *Chongkukjang***Min-Jung Kang<sup>1\*</sup>, Jung-In Kim<sup>1</sup>, Sung-Gu Kim<sup>2</sup>, Ki-Hun Park<sup>3</sup>

<sup>1</sup>Biohealth Product Research Center, School of Food and Life Science,  
Institute for Food Sciences, Institute of Basic Sciences, Inje University, Gimhae, Korea,  
<sup>2</sup>NC Korea Co., Ltd, Busan, Korea, <sup>3</sup>College of Agriculture, Gyeongsang National University,  
Jinju, Korea

$\alpha$ -Glucosidase is the enzyme to digest carbohydrate, and inhibition of  $\alpha$ -glucosidase could suppress postprandial hyperglycemia. In the preliminary study *Chongkukjang* showed strong inhibitory activity against yeast  $\alpha$ -glucosidase and long term feeding of *Chongkukjang* exerted hypoglycemic effect in streptozotocin-induced diabetic rats and diabetic patients. The purpose of this study is to isolate the compound to elicit  $\alpha$ -glucosidase inhibitory activity from *Chongkukjang*. *Chongkukjang* methanol extract was fractionated with hexane, ethylacetate, butanol and distilled water successively. Each extract was tested for inhibitory activity against  $\alpha$ -glucosidase using para-nitrophenyl- $\alpha$ -D-glucopyranoside as a substrate. The ethylacetate-soluble fraction showed the strongest  $\alpha$ -glucosidase inhibitory activity and was purified by repeated silicagel column chromatography and thin layer chromatography. Structure of the isolated compound was determined by <sup>1</sup>H-NMR and <sup>13</sup>C-NMR. Yeast  $\alpha$ -glucosidase inhibitory activities of these fractions were measured. We concluded that the active constituent of *Chongkukjang* responsible for  $\alpha$ -glucosidase inhibitory activity is genistein.