

4th International Conference and Exhibition on

Food Processing & Technology

August 10-12, 2015 London, UK

Antioxidant activity and nitric oxide production of extracts from maize hybrid for grain, 'Kangilok'

Hee Yeon Kim, Sang Hyun Lim, Hee Sun Noh, Nam Ki Heo, Jong Yeol Park, Si Hwan Ryu and Kyung Hee Kim
Gangwondo Agriculture Research and Extension Services, Republic of Korea

Maize hybrid for grain, 'Kangilok' was developed in 2005 by Gangwon Agricultural Research and Extension Services in republic of Korea and registered in 2007. Since 2007, Kangilok has been supplied every year in republic of Korea. The objective of this study was to investigate worth of 4 parts of Kangilok for functional foods. The 4 parts are kernels (K), dehulled kernels (DK), skin of kernels (SK) and Cobs (C) of Kangilok. It was focused on anti-oxidative, anti-inflammatory activities of 60% ethanol (in 1% citric acid) extract from 4 parts of Kangilok. We evaluate radical scavenging activity on DPPH and ABTS radicals for anti-oxidative effect and on the production of nitric oxide in RAW 264.7 cell for anti-inflammatory effect. DPPH radical scavenging activity (0.1 mg/ml) was 93.5~72.6 % and ABTS radical scavenging activity (0.1 mg/ml) was 48.2~79.9%. No production (0.1 mg/ml) was 9.5~6.0 uM. These results suggest that the 4 parts of Kangilok may be useful for functional materials such as anti-oxidative, anti-inflammatory agent.

Biography

Hee yeon Kim received her PhD from Kangwon National University in republic of Korea. She is the Researcher of Quality Research Laboratory in Gangwon Agricultural Research and Extension Services.

heeya80@korea.kr

Notes: