

Proximate Composition and Selected Phytoestrogens of Iranian Black Pomegranate Extract

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Phytoestrogens are non-steroidal compounds found in a variety of plants, which exert estrogenic effects in animals. In this study, the physico-chemical properties of Iranian black pomegranate extract and its products as preliminary research for the developing of natural estrogen supplement were evaluated. The chemical components of Iranian black pomegranate extracts and its product (Forever120) were analyzed. Proximate compositions of pomegranate extracts were as follows; crude lipid 0.4%, crude protein 0.9%, crude ash 1.4% and carbohydrate 42.0%. Major amino acids of pomegranate extracts are glutamic acid (1310.0ppm), aspartic acid (896.2ppm), arginine (877.7ppm) and phenylalanine (57.5ppm). Fatty acid compositions of pomegranate extract lipid extracted by chloroform-methanol (2:1) were myristic(13.1%), stearic (69.4), oleic acid (6.8%) and palmitic acid (8.3%). Mineral elements were ferrous (6640.0ppm) and potassium (2550.8ppm). Vitamins were composed of ascorbic acid(20.0mg/100g), Vit. B₁ (0.12mg/100g) and niacin (0.80mg/100g). 20 phytoestrogens and 20 estrogens of pomegranate extracts were detected daidzein (0.29ppm), quercetin (9.75ppm), genistein (0.29ppm) and 17 β -estradiol(0.15ppm). Above the chemical components of pomegranate extracts were compared with that of pomegranate its product or other isoflavon concentrates.