

### OD3. Chemical constituents of Brown Waxy Rice Grains *Oryza sativa*

Ateeque Ahmad, Kwang-Ho Kim, Joung-Kuk Ahn, SangJoon Hahn, Ill-Min Chung\*

Deptt of Crop Science, Konkuk University, Seoul 143-701, Korea

#### Objective

Isolation and identification of bioactive constituents having antioxidation and other actions of brown waxy rice grain (dehulled) *Oryza sativa*. To comply with these objectives in this study attempts have been made to isolate and identify such substances.

#### Materials and Methods

◆ **Rice Varieties** : Brown waxy rice grain (dehulled) collected from experimental farm of Konkuk University, Seoul, Korea

◆ **Methods** : The grains of *Oryza sativa* after grinding in powder form was extracted with 80% methanol (5.0L X 3). After removal of solvent in vacuo, the residue (26.1g) was chromatographed over Silica gel using *n*-hexane, *n*-hexane-EtOAc and EtOAc-MeOH mixtures of increasing polarity and isolated six pure compounds and more compounds purification is in progress.

#### Results and Discussion

The *Oryza sativa* has been the subject of very few investigations on the basis of literature and there was no work on its grain(dehulled), only one or two reports on rice grain i.e. not concerned with the isolation of compounds. More emphasis is now being given to the chemistry of rice grains to isolate and identify the bioactive constituents having antioxidation and other actions from the 80 % methanolic extract of grains of *Oryza sativa* was chromatographed and isolated six pure compounds more compounds purification is in progress. The IR and Mass data of these pure compounds as given below:1.Mass:280(28),256(100),213(42),185(18),171(15),129(30),79(33).IR:3009,2917,2849,2672,1707,1462,1293,758.2.Mass:284(3),256(100),213(33),185(12),129(26),73(42),60(33).IR:3211,2914,2846,1696,1403,1292,96.3.Mass:312(2),280(12),256(100),213(52),185(24),149(25),129(80),69(94).IR:3108,2914,2847,1696,1461,1404,1292.4.Mass:428(8),401(2),355(10),341(40),284(4),280(7),256(100),213(38),129(52),73(100),57(78).IR:3020,2918,2890,1702,1407,1295,1094,758.5.Mass:530(38),515(13),463(12),435(10),421(7),407(5),316(6),309(5),253(8),211(15),183(24).IR:3168,2922,1460,1376.6.Mass:578(12),535(7),503(56),355(82),341(18),221(42),IR:3440,2920,1729,1459,1258,1025;<sup>1</sup>H and <sup>13</sup>CNMR data of these compounds is in progress. The structure elucidation of the above compounds will be discussed later after confirmation of the structure. This is the first chemical investigation report on isolation of compounds from rice grains.

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\*Corresponding author: Chung Ill-Min, Tel :02-450-3730;E-mail:imcim@konkuk.ac.kr