

Additional data.

Table S1. Experimental condition matrix coded factors based on central composite design for this study.

Run	A Inlet Temperature (°C)	B Feed Flowrate (%)	C Air Flowrate (L/hr)	Response 1 The yield of RBP Powder (g RBP/100g RRB)
1	165	20	388	19.0
2	165	20	388	21.6
3	180	15	325	9.9
4	165	20	388	17.8
5	180	25	450	26.8
6	165	20	493	25.8
7	150	25	325	10.2
8	165	20	388	18.8
9	150	25	450	23.9
10	165	20	388	18.4
11	165	20	388	19.3
12	165	20	388	18.4
13	165	20	388	18.1
14	180	15	450	21.8
15	165	20	388	18.7
16	165	20	388	19.6
17	165	20	388	17.9
18	165	20	388	18.2
19	150	15	450	19.3
20	165	28	388	18.2
21	165	12	388	17.2
22	140	20	388	16.3
23	150	15	325	7.3
24	165	20	388	18.4
25	165	20	388	18.6
26	165	20	282	4.75
27	190	20	388	17.4
28	180	25	325	12.4
29	165	20	388	18.6

Protein sequencing method based on *de novo* peptide sequencing.

Q75GX9|GLB63_ORYSJ

[| Protein Coverage](#) | [| Supporting Peptides](#) |

Protein Coverage:

```
1  MATRARATIL LLLAAVLFAA AAAASGEDRR RETSLRRCLQ RCEQDRPPYE RARCVQECKD QQQQQQERRR EHGGHDDDRR
81  DRDRRGEGSS EEEDEGRERG SRRRPYVFG RSRQVVRSD QGSVRLLPPF HQASSLLRGI KNYRVAVLEA NPRSFVMPH
161 TDAHCICYVA QGEGVVAIIE NGEKWSYAIR QGDVFVAPAG TINYLANTDG RRKLIVTKIL HTISVPGQIQ FFFAPGGRNP
241 ESFLSSFSKG VQRAAFKISE EKLEKLLGKQ DKGVIIRASE EQVRELRRHA SEGGHGPHWP LPPFGESSRG PFNILEQRPR
321 FANRHGRLYE ADARSFHDLA EHDIRVAVVN ITAGSMNAPF YNTRSVKVAY VLDGEGEAEI VCPHLRSGGR GGESEERRRE
401 RGKGKWRREE EEEEEQQKGQ EEEEEQVGQ GYETIRARLS RGTVFVVP SG HPIVVTSSRD STLQIVCFDV HANNNERMYL
481 AGMNSVLKKL DPQAKELAF AASAREVDELL NAQQESAFLA GPEKSGRRGE ESEDEDRRRR RSHRGRGDEA VETLLRMAAA
561 AV
```

Figure S1. Globulin sequence for raw rice bran (RRB).

Q75GX9|GLB63_ORYSJ

[| Protein Coverage](#) | [| Supporting Peptides](#) |

Protein Coverage:

```
1  MATRARATIL LLLAAVLFAA AAAASGEDRR RETSLRRCLQ RCEQDRPPYE RARCVQECKD QQQQQQERRR EHGGHDDDRR  Carbamidomethylation (+57.02)
81  DRDRRGEGSS EEEDEGRERG SRRRPYVFG RSRQVVRSD QGSVRLLPPF HQASSLLRGI KNYRVAVLEA NPRSFVMPH  Oxidation (M) (+15.99)
161 TDAHCICYVA QGEGVVAIIE NGEKWSYAIR QGDVFVAPAG TINYLANTDG RRKLIVTKIL HTISVPGQIQ FFFAPGGRNP
241 ESFLSSFSKG VQRAAFKISE EKLEKLLGKQ DKGVIIRASE EQVRELRRHA SEGGHGPHWP LPPFGESSRG PFNILEQRPR
321 FANRHGRLYE ADARSFHDLA EHDIRVAVVN ITAGSMNAPF YNTRSVKVAY VLDGEGEAEI VCPHLRSGGR GGESEERRRE
401 RGKGKWRREE EEEEEQQKGQ EEEEEQVGQ GYETIRARLS RGTVFVVP SG HPIVVTSSRD STLQIVCFDV HANNNERMYL
481 AGMNSVLKKL DPQAKELAF AASAREVDELL NAQQESAFLA GPEKSGRRGE ESEDEDRRRR RSHRGRGDEA VETLLRMAAA
561 AV
```

Figure S2. Globulin sequence for rice bran powder (RBP).

P07730|GLUA2_ORYSJ

[Protein Coverage](#) | [Supporting Peptides](#) |

Protein Coverage:

1 MASINRPIVF FTVCLFLLCD GSLAQQLLGQ STSQWQSSRR GSPRGCR**FDR LQAFEP**IRSV RSQAGTTEFF DVSNELFQCT ■ Carbamidomethylation (+57.02)
 81 GVSVRRVIE PR**GLLLPHYT NGASLVYIIQ GR**GITGPTFP GCPETYQQQF QQSGQAQLTE SQQSHKFKD EHQKIHR**FRQ**
 161 **GDVIALPAGV AHW**CYNDGEV PVVAIY**VTDI NNGANQLDPR QRD**FLAGNK RNPQAYRREV EEWSQNIFSG FSTELLSEAF
 241 GISNQVARQL QCQNDQRGEI VRVER**GLSLL QPYASLQEQE QGQM**SREHY QEGGYQQSQY GSGCPN**GLDE TFCTMR**VRQN ■ 313
 321 IDNPNRADTY NPRAGRVTNL NSQNFILNL VQMSAVKVNLYQNALLSPFW NINAHSIVYI TQGRAQVQVV NNGKTVFNG
 401 ELRRGQLLIV PQHYVVVKA QREGCAYIAF **KTNPNSMVSH IAGK**SSIFRA **LPTDVL**ANAY **RISREEA**QRL **KHNRGDE**FGA
 481 **FTPLQYK**SYQ DVYNVAESS

Figure S3. Glutelin sequence for raw rice bran (RRB).

P07730|GLUA2_ORYSJ

[Protein Coverage](#) | [Supporting Peptides](#) |

Protein Coverage:

1 MASINRPIVF FTVCLFLLCD GSLAQQLLGQ STSQWQSSRR GSPRGCR**FDR LQAFEP**IRSV RSQAGTTEFF DVSNELFQCT ■ Carbamidomethylation (+57.02) ■ N->D
 81 GVSVRRVIE PR**GLLLPHYT NGASLVYIIQ GR**GITGPTFP GCPETYQQQF QQSGQAQLTE SQQSHKFKD EHQKIHR**FRQ**
 161 **GDVIALPAGV AHW**CYNDGEV PVVAIY**VTDI NNGANQLDPR QRD**FLAGNK RNPQAYRREV EEWSQNIFSG FSTELLSEAF
 241 GISNQVARQL QCQNDQR**GEI VRVER**GLSLL QPYASLQEQE QGQM**SREHY** QEGGYQQSQY GSGCPN**GLDE TFCTMR**VRQN ■ 313
 321 IDNPNRADTY NPRAGRVTNL NSQNFILNL VQMSAVKVNLYQNALLSPFW NINAHSIVYI TQGRAQVQVV NNGKTVFNG
 401 ELRRGQLLIV PQHYVVVKA QREGCAYIAF **KTNPNSMVSH IAGK**SSIFRA **LPTDVL**ANAY **RISREEA**QRL **KHNRGDE**FGA
 481 **FTPLQYK**SYQ DVYNVAESS

Figure S4. Glutelin sequence for rice bran powder (RBP).

P20698|PRO28_ORYSJ

[Protein Coverage](#) | [Supporting Peptides](#) |

Protein Coverage:

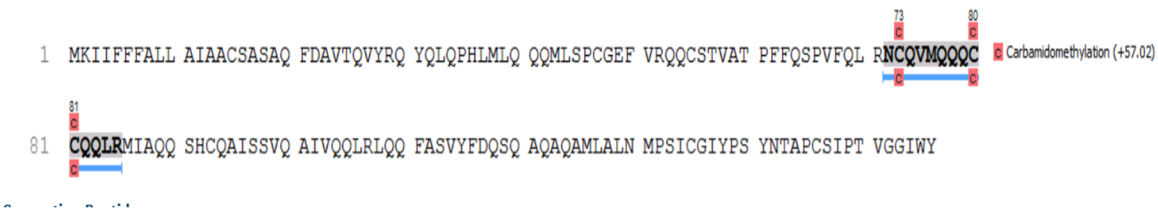


Figure S5. Prolamin sequence for raw rice bran (RRB).

Q75KH3|GRDH_ORYSJ

[Protein Coverage](#) | [Supporting Peptides](#) |

Protein Coverage:

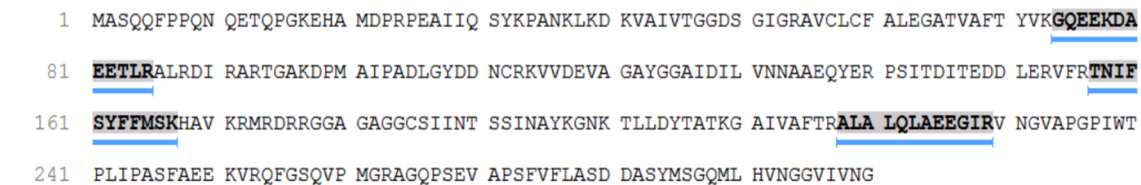


Figure S6. Glucose and ribitol sequence for rice bran powder (RBP).

P46257|ALF2_PEA

[Protein Coverage](#) | [Supporting Peptides](#) |

Protein Coverage:

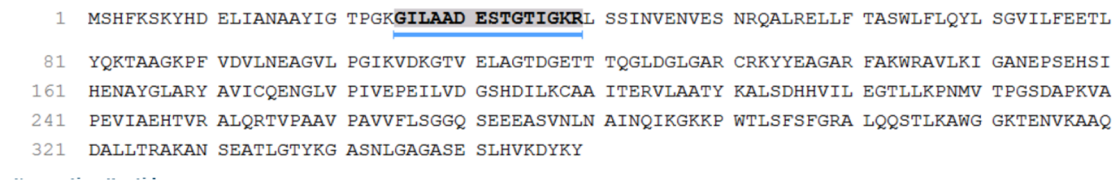


Figure S7. Fructose-bisphosphate aldolase sequence for rice bran powder (RBP).