

ONLINE SUPPORTING MATERIAL

Anthocyanin-Enriched Riceberry Rice Extract Inhibits Cell Proliferation and Adipogenesis in 3T3-L1 Preadipocytes by Downregulating Adipogenic Transcription Factors and Their Targeting Genes

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Figure S1. Extracted ion chromatogram of phytochemical compounds detected in riceberry rice extract (RBE) obtained by UHPLC–ESI–Q–TOF–MS/MS in negative (a) and positive (b) ion mode.

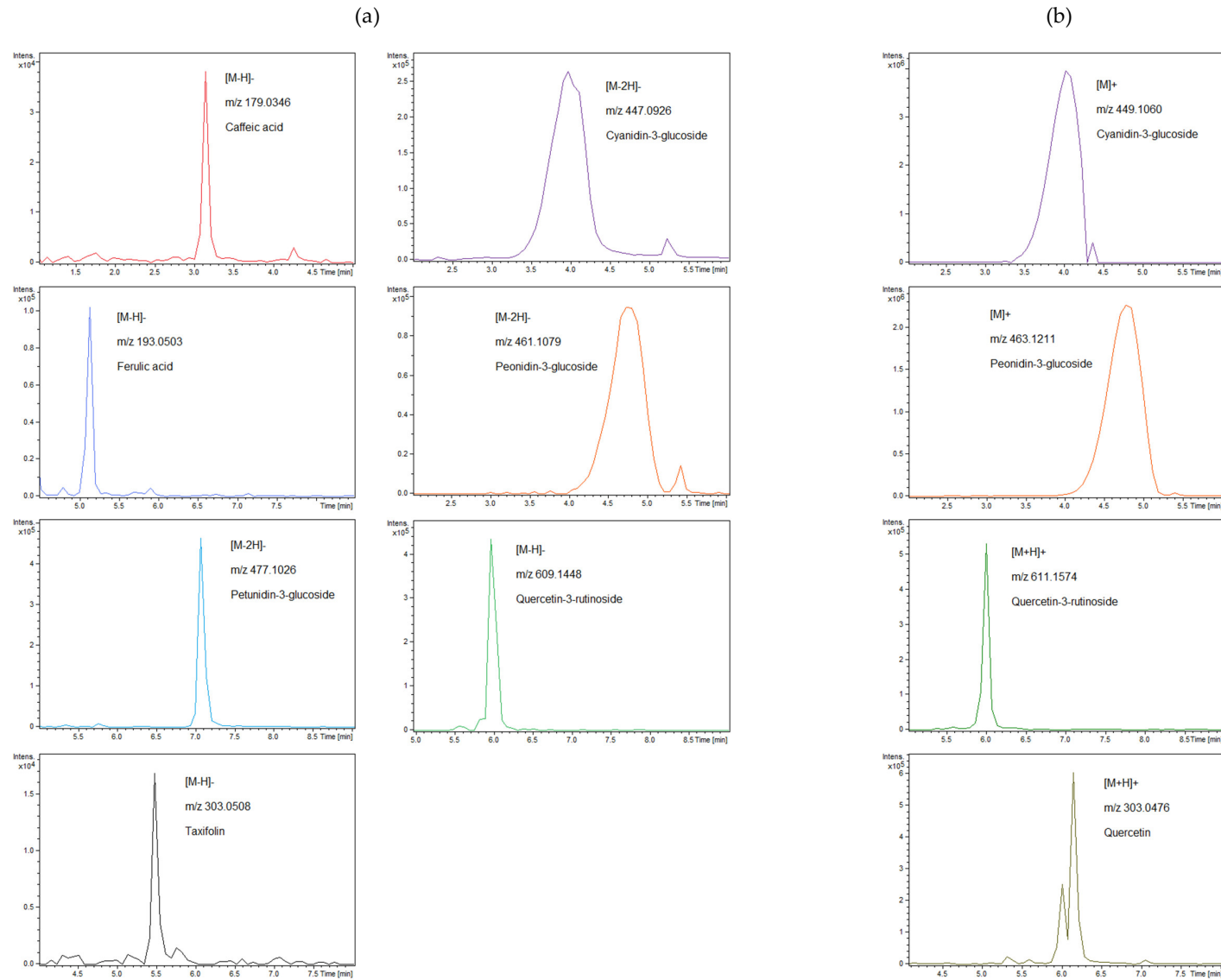


Table S1. List of primers for RT-qPCR

Gene	Forward primer (5'-3')	Reverse primer (5'-3')	Size (bp)
PPAR γ	ACGTGCAGCTACTGCATGTGA	AGAAGGAACACGTTGTCAGCG	125
C/EBP α	GGAACCTGAAGCACAATCGATC	TGGTTTAGCATAGACGTGCACA	156
C/EBP β	TGAGCGACGAGTACAAGATGC	GACAGCTGCTCCACCTTCTTCT	154
C/EBP γ	ATCGACTTCAGCGCCTACAT	GCTTTGTGGTTGCTGTTGAA	101
InsR	CAGAAGCACAATCAGAGTGAGTATGAC	ACCACGTTGTGCAGGTAATCC	137
AdipoQ	GCACTGGCAAGTTCTACTGCAA	GTAGGTGAAGAGAACGGCCTTGT	122
AdipoQ-R1	CCCCCTTACCCCCGTCCTTAC	GGCGTGGCTTTGTTTGCCTA	121
AdipoQ-R2	TGCGCACACGTTTCAGTCTCCT	TTCTATGATCCCCAAAAGTGTGC	156
Leptin	GAGACCCCTGTGTCGGTTC	CTGCGTGTGTGAAATGTCATTG	139
Resistin	TGCCAGTGTGCAAGGATAGACT	CGCTCACTTCCCCGACAT	80
aP2	AAGGTGAAGAGCATCATAACCCT	TCACGCCTTTCATAACACATTCC	133
FasN	AGGTGGTGATAGCCGGTATGT	TGGGTAATCCATAGAGCCCAG	138
ACC	CGGACCTTTGAAGATTTTGT	GCTTTATTCTGCTGGGTGAA	233
Glut4	CAACTGGACCTGTAACCTCATTGT	ACGGCAAATAGAAGGAAGACGTA	87
HSL	GCTGGAGGAGTGTTTTTTTGC	AGTTGAACCAAGCAGGTCACA	64
ATGL	GGATGAAAGAGCAGACGGGTAG	CGCAAGACAGTGGCACAGAG	144
LPL	GGCTCTGCCTGAGTTGTAGAA	GGCATCTGAGAGCGAGTCTTC	112
Perilipin	AAGGATCCTGCACCTCACAC	CCTCTGCTGAAGGGTTATCG	101
β -actin	TGTCCACCTTCCAGCAGATGT	AGCTCAGTAACAGTCCGCCTAGA	101

PPAR γ : peroxisome proliferator-activated receptor- gamma; C/EBP α,β,γ : CCAAT-enhancer binding protein-alpha, beta, gamma; InsR: insulin receptor; AdipoQ: adiponectin; AdipoQ-R1,R2: adiponectin receptor-1,2; aP2/Fabp4: fatty acid binding protein 4; FasN: fatty acid synthase; ACC: acetyl CoA carboxylase; Glut4: glucose transporter 4; HSL: hormone-sensitive lipase; ATGL: adipose triglyceride lipase; LPL: lipoprotein lipase; β -actin: Beta-actin.

Table S2. MS and MS/MS data of phytochemical compounds detected in riceberry rice extract (RBE) obtained by UHPLC–ESI-Q-TOF-MS/MS in negative mode

No	RT (min)	Compounds	Molecular Formula	Adduct type	Parent ion (m/z)	MS/MS fragments (m/z)
1	3.14917	Caffeic acid	C ₉ H ₈ O ₄	[M-H]-	179.0346	135.0448, 134.0369, 136.0483, 179.0337, 107.0504, 117.0351, 137.0489, 151.0035, 133.0268, 107.0143
2	3.97533	Cyanidin-3-glucoside	C ₂₁ H ₂₁ O ₁₁	[M-2H]-	447.0926	284.032, 285.0389, 286.0423, 447.0923, 299.0554, 125.024, 448.0953, 287.0462, 283.0253, 147.0081
3	4.73268	Peonidin-3-glucoside	C ₂₂ H ₂₃ O ₁₁	[M-2H]-	461.1079	299.0551, 298.0477, 300.0587, 283.0241, 284.0319, 285.0382, 327.1456, 301.0648, 257.0455, 459.1878
4	5.14577	Ferulic acid	C ₁₀ H ₁₀ O ₄	[M-H]-	193.0503	134.0372, 178.0269, 133.0295, 135.0406, 179.0302, 149.0598, 193.0505, 137.0236, 106.0424, 136.0426
5	5.49005	Taxifolin	C ₁₅ H ₁₂ O ₇	[M-H]-	303.0508	125.0241 217.0495, 175.0407, 285.0401, 178.9985, 151.0038, 153.0186, 151.0403, 177.0199, 181.0141
6	5.97192	Quercetin-3-rutinoside	C ₂₇ H ₃₀ O ₁₆	[M-H]-	609.1448	609.145, 300.0271, 301.0342, 610.1486, 611.1507, 302.0377, 178.9983, 343.045, 151.0031, 612.153
7	7.07342	Petunidin-3-glucoside	C ₂₂ H ₂₃ O ₁₂	[M-2H]-	477.1026	477.1026, 314.0424, 478.1059, 315.0475, 479.1081, 357.0608, 286.0472, 271.0239, 285.0405, 316.0499

Table S3. MS and MS/MS data of phytochemical compounds detected in riceberry rice extract (RBE) obtained by UHPLC–ESI-Q-TOF-MS/MS in positive mode

No	RT (min)	Compounds	Molecular Formula	Adduct type	Parent ion (m/z)	MS/MS fragments (m/z)
1	4.02072	Cyanidin-3-glucoside	C ₂₁ H ₂₁ O ₁₁	[M] ⁺	449.1060	287.0533, 288.0568, 289.059, 290.0618
2	4.77668	Peonidin-3-glucoside	C ₂₂ H ₂₃ O ₁₁	[M] ⁺	463.1211	301.0687, 302.0722, 286.0453, 303.0744, 287.0491, 258.0507, 304.0767, 259.0563
3	6.01357	Quercetin-3-rutinoside	C ₂₇ H ₃₀ O ₁₆	[M+H] ⁺	611.1574	303.0473, 304.0509, 85.0275, 129.053, 305.0525, 145.048, 127.0374, 97.027, 147.0636, 151.0375
4	6.15097	Quercetin	C ₁₅ H ₁₀ O ₇	[M+H] ⁺	303.0476	303.0475, 229.0477, 304.051, 153.0166, 257.0422, 137.0218, 165.0166, 285.0374, 201.053, 247.0578