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| **Table S1 Gene primer information of** Actinidia arguta |
| Gene Number | Primer Name | Sequence (5'to3') |
| 1 | Internal reference ACTIN-F | CGAACGGGAAATTGTCCGT |
|  | Internal reference ACTIN-R | TTCTCAACTGAGGAGCTGCTCTT |
| 2 | Cluster-10307.10288-F | AGAATGGGGACTTGCTTTAGC |
|  | Cluster-10307.10288-R | CCAAACCAAACCAATTTCACCA |
| 3 | Cluster-10307.30160-F | CGATTGAATCATGCAGACA |
|  | Cluster-10307.30160-R | TCAAGTCCTTGTGATTACCTA |
| 4 | Cluster-10307.4519-F | GTTGGTCCAGAACTTCGA |
|  | Cluster-10307.4519-R | CAGAACAATGGTTGAGTGC |
| 5 | Cluster-10307.5267-F | GAAAGTGGTGGTGGAGAAAGAT |
|  | Cluster-10307.5267-R | ACAAGCCCATCTATCTCTTCCT |
| 6 | Cluster-10307.55417-F | GGGAATAGTTGGGTTGAGATTGG |
|  | Cluster-10307.55417-R | GTGAGTGGAAGTTTTATGGAGACC |
| 7 | Cluster-10307.69071-F | CAGTGTCTCCTTCCTTGAA |
|  | Cluster-10307.69071-R | GCCAGCAACTCAAAAGTAG |
| 8 | Cluster-10307.81571-F | AGTTCAGCCTACACATTGC |
|  | Cluster-10307.81571-R | GGATACAAACAGTACCCCAC |
| 9 | Cluster-10307.9753-F | TCCTTTGTCTTGGAGGTTT |
|  | Cluster-10307.9753-R | GTCGAGCCACTTATCTTCT |
| 10 | Cluster-6365.0-F | ATTTTCTCTCCGCTAACG |
|  | Cluster-6365.0-R | ACCGCATTTAATCTCTTCA |
| 11 | Cluster-10307.4971-F | CCAGTGGTGTATGAAATGAAAC |
|  | Cluster-10307.4971-R | AGAGAAACCATCAAGCCATC |
| 12 | Cluster-10307.82368-F | TCACTCTGAAGAAGGCTCT |
|  | Cluster-10307.82368-R | TCGCAGTAATGGCAACAA |

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| Table S2. Statistical list of differential Flavonoids during  Actinidia arguta fruit maturity |
| **Qssg vs Lc** |
| Formula | Compounds | Class I | Class II |
| C15H10O4 | Chrysin | Flavonoids | Flavones |
| C15H10O5 | Baicalein | Flavonoids | Flavones |
| C15H12O5 | Pinobanksin\* | Flavonoids | Flavanonols |
| C15H12O5 | Naringenin (5,7,4'-Trihydroxyflavanone)\* | Flavonoids | Flavanones |
| C16H14O5 | 7-O-Methylnaringenin | Flavonoids | Flavanones |
| C15H12O6 | Aromadendrin (Dihydrokaempferol) | Flavonoids | Flavanonols |
| C15H14O6 | Epicatechin\* | Flavonoids | Flavanols |
| C15H14O6 | Catechin\* | Flavonoids | Flavanols |
| C16H12O6 | 5,7,2'-Trhiyroxy-8-methoxyflavone\* | Flavonoids | Flavones |
| C16H12O6 | Hispidulin (5,7,4'-Trihydroxy-6-methoxyflavone)\* | Flavonoids | Flavones |
| C16H12O6 | Diosmetin (5,7,3'-Trihydroxy-4'-methoxyflavone)\* | Flavonoids | Flavanones |
| C15H10O7 | Quercetin | Flavonoids | Flavonols |
| C16H14O6 | Dihydrokaempferide | Flavonoids | Flavanonols |
| C15H14O7 | Epigallocatechin | Flavonoids | Flavanols |
| C17H14O7 | Quercetin-3',4'-dimethyl ether | Flavonoids | Flavonols |
| C20H20O7 | Tangeretin (4',5,6,7,8-Pentamethoxyflavone) | Flavonoids | Flavones |
| C21H22O8 | Nobiletin (5,6,7,8,3',4'-Hexamethoxyflavone) | Flavonoids | Flavones |
| C21H20O10 | Apigenin-7-O-glucoside(Cosmosiin) | Flavonoids | Flavones |
| C21H20O10 | Galangin-7-O-glucoside | Flavonoids | Flavones |
| C20H18O11 | Avicularin(Quercetin-3-O-α-L-arabinofuranoside)\* | Flavonoids | Flavonols |
| C20H18O11 | Quercetin-3-O-xyloside (Reynoutrin)\* | Flavonoids | Flavonols |
| C20H18O11 | Quercetin-3-O-arabinoside (Guaijaverin)\* | Flavonoids | Flavonols |
| C21H22O10 | Naringenin-7-O-glucoside (Prunin) | Flavonoids | Flavanones |
| C21H22O10 | Isosalipurposide (Phlorizin Chalcone) | Flavonoids | Chalcones |
| C21H22O10 | Isohemiphloin | Flavonoids | Flavonoid carbonoside |
| C21H24O10 | Phloretin-4'-O-glucoside (Trilobatin) | Flavonoids | Chalcones |
| C22H18O10 | Catechin gallate\* | Flavonoids | Flavanols |
| C22H18O10 | Epicatechin gallate\* | Flavonoids | Flavanols |
| C21H20O11 | Kaempferol-3-O-glucoside (Astragalin) | Flavonoids | Flavonols |
| C21H20O11 | Kaempferol-7-O-glucoside\* | Flavonoids | Flavonols |
| C21H20O11 | Luteolin-4'-O-glucoside\* | Flavonoids | Flavones |
| C21H20O11 | Kaempferol-3-O-galactoside (Trifolin)\* | Flavonoids | Flavonols |
| C21H20O11 | Luteolin-3'-O-glucoside\* | Flavonoids | Flavones |
| C21H22O11 | Aromadendrin-7-O-glucoside | Flavonoids | Flavanonols |
| C21H22O11 | 6-C-Glucosyl-2-Hydroxynaringenin | Flavonoids | Flavanones |
| C21H22O11 | Taxifolin-3-O-rhamnoside (Astilbin) | Flavonoids | Flavanonols |
| C21H22O11 | Dihydrokaempferol-3-O-glucoside | Flavonoids | Flavanonols |
| C21H22O11 | Eriodictyol-3'-O-glucoside | Flavonoids | Flavanones |
| C24H20O9 | Catechin-(7,8-bc)-4α-(3,4-dihydroxyphenyl)-dihydro-2-(3H)-one\* | Flavonoids | Flavanols |
| C24H20O9 | Catechin-(7,8-bc)-4β-(3,4-dihydroxyphenyl)-dihydro-2-(3H)-one\* | Flavonoids | Flavanols |
| C21H24O11 | Epicatechin glucoside | Flavonoids | Flavanols |
| C22H18O11 | Epigallocatechin-3-gallate\* | Flavonoids | Flavanols |
| C22H18O11 | Gallocatechin 3-O-gallate\* | Flavonoids | Flavanols |
| C22H22O11 | Diosmetin-7-O-glucoside\* | Flavonoids | Flavanones |
| C22H22O11 | Diosmetin-7-O-galactoside\* | Flavonoids | Flavanones |
| C22H22O11 | Hispidulin-7-O-Glucoside | Flavonoids | Flavones |
| C21H20O12 | 6-Hydroxykaempferol-7-O-glucoside | Flavonoids | Flavonols |
| C21H20O12 | Isohyperoside | Flavonoids | Flavonols |
| C21H20O12 | 6-Hydroxyluteolin 5-glucoside | Flavonoids | Flavones |
| C21H20O12 | Quercetin-3-O-galactoside (Hyperin)\* | Flavonoids | Flavonols |
| C21H20O12 | Quercetin-3-O-glucoside (Isoquercitrin)\* | Flavonoids | Flavonols |
| C21H20O12 | Quercetin-4'-O-glucoside (Spiraeoside)\* | Flavonoids | Flavonols |
| C21H20O12 | Quercetin-7-O-glucoside\* | Flavonoids | Flavonols |
| C22H24O11 | Hesperetin-7-O-glucoside | Flavonoids | Flavanones |
| C22H24O11 | Hesperetin-5-O-glucoside | Flavonoids | Flavanones |
| C23H16O11 | Isorhamnetin-3-O-gallate | Flavonoids | Flavonols |
| C22H22O12 | Isorhamnetin-3-O-Glucoside\* | Flavonoids | Flavonols |
| C22H22O12 | Rhamnetin-3-O-Glucoside\* | Flavonoids | Flavonols |
| C22H22O12 | 6-Methoxykaempferol-3-O-glucoside | Flavonoids | Flavonols |
| C22H22O12 | Isorhamnetin-7-O-glucoside (Brassicin)\* | Flavonoids | Flavonols |
| C22H22O13 | Mearnsetin-3-O-glucoside | Flavonoids | Flavones |
| C23H22O13 | Quercetin-3-O-(6''-acetyl)galactoside | Flavonoids | Flavonols |
| C24H22O14 | Kaempferol-3-O-(6''-malonyl)glucoside\* | Flavonoids | Flavonols |
| C24H22O14 | Kaempferol-3-O-(6''-malonyl)galactoside\* | Flavonoids | Flavonols |
| C24H22O15 | Quercetin-3-O-(6''-malonyl)galactoside | Flavonoids | Flavonols |
| C24H22O15 | Quercetin-7-O-(6''-malonyl)glucoside | Flavonoids | Flavonols |
| C25H26O14 | Hesperetin-7-O-(6''-malonyl)glucoside | Flavonoids | Flavanones |
| C30H26O11 | Epicatechin-epiafzelechin | Flavonoids | Flavanols |
| C26H26O15 | Apigenin-6-C-(2''-glucuronyl)xyloside | Flavonoids | Flavonoid carbonoside |
| C27H30O14 | Kaempferol-3,7-O-dirhamnoside (Kaempferitrin) | Flavonoids | Flavonols |
| C26H28O15 | Luteolin-7-O-glucoside-5-O-arabinoside | Flavonoids | Flavones |
| C30H26O13 | Kaempferol-3-O-(6''-p-Coumaroyl)galactoside | Flavonoids | Flavonols |
| C30H26O13 | Kaempferol-3-O-(6''-p-Coumaroyl)glucoside (Tiliroside) | Flavonoids | Flavonols |
| C30H26O13 | Luteolin-7-O-(6''-caffeoyl)rhamnoside | Flavonoids | Flavones |
| C27H30O15 | Luteolin-7-O-neohesperidoside (Lonicerin) | Flavonoids | Flavones |
| C27H30O15 | Kaempferol-3-O-robinobioside(Biorobin) | Flavonoids | Flavonols |
| C27H30O15 | Kaempferol-3-O-neohesperidoside\* | Flavonoids | Flavonols |
| C27H30O15 | Kaempferol-3-O-rutinoside(Nicotiflorin)\* | Flavonoids | Flavonols |
| C27H30O15 | Luteolin-7-O-rutinoside | Flavonoids | Flavones |
| C27H30O15 | Quercetin-3,7-Di-O-rhamnoside | Flavonoids | Flavonols |
| C27H30O15 | Kaempferol-3-O-glucorhamnoside | Flavonoids | Flavonols |
| C28H34O14 | Poncirin (Isosakuranetin-7-O-neohesperidoside) | Flavonoids | Flavanones |
| C26H28O16 | Quercetin-3-O-(6''-O-arabinosyl)glucoside | Flavonoids | Flavonols |
| C26H28O16 | Quercetin-3-O-sambubioside\* | Flavonoids | Flavonols |
| C26H28O16 | Quercetin-3-O-apiosyl(1→2)galactoside\* | Flavonoids | Flavonols |
| C30H26O14 | Quercetin-3-O-(6''-p-Coumaroyl)glucoside\* | Flavonoids | Flavonols |
| C30H26O14 | Quercetin-3-O-(6''-p-Coumaroyl)galactoside\* | Flavonoids | Flavonols |
| C27H30O16 | Quercetin-3-O-(2''-O-rhamnosyl)galactoside | Flavonoids | Flavonols |
| C27H30O16 | Quercetin-7-O-rutinoside\* | Flavonoids | Flavonols |
| C27H30O16 | Orientin-7-O-glucoside | Flavonoids | Flavonoid carbonoside |
| C27H30O16 | Quercetin-3-O-rutinoside (Rutin)\* | Flavonoids | Flavonols |
| C27H30O16 | Quercetin-3-O-(4''-O-glucosyl)rhamnoside\* | Flavonoids | Flavonols |
| C27H30O16 | Quercetin-3-O-glucoside-7-O-rhamnoside\* | Flavonoids | Flavonols |
| C27H30O16 | Isorhamnetin-3-O-(2''-O-xylosyl)glucoside | Flavonoids | Flavonols |
| C27H30O16 | Quercetin-3-O-robinobioside\* | Flavonoids | Flavonols |
| C28H32O16 | Rhamnetin-3-O-Rutinoside\* | Flavonoids | Flavonols |
| C28H32O16 | Isorhamnetin-3-O-rutinoside (Narcissin)\* | Flavonoids | Flavonols |
| C28H32O16 | Isorhamnetin-3-O-neohespeidoside\* | Flavonoids | Flavonols |
| C27H30O17 | Quercetin-3-O-sophoroside (Baimaside) | Flavonoids | Flavonols |
| C27H30O17 | Meratin | Flavonoids | Flavones |
| C27H30O17 | Quercetin-5,4ʹ-di-O-glucoside | Flavonoids | Flavonols |
| C27H30O17 | 6-Hydroxykaempferol-3,6-O-Diglucoside | Flavonoids | Flavonols |
| C27H30O17 | Quercetin-3-O-(2''-O-galactosyl)glucoside | Flavonoids | Flavonols |
| C29H30O19 | Quercetin-3-O-(2''-malonyl)glucoside-7-O-arabinoside | Flavonoids | Flavonols |
| C30H32O20 | Quercetin-7-O-(2''-malonyl)glucosyl-5-O-glucoside | Flavonoids | Flavonols |
| C32H38O19 | Kaempferol-3-O-(2-O-Xylosyl-6-O-Rhamnosyl)Glucoside | Flavonoids | Flavonols |
| C32H38O20 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | Flavonoids | Flavonols |
| C32H38O20 | Quercetin-3-O-(2''-O-arabinosyl)rutinoside | Flavonoids | Flavonols |
| C33H40O20 | Quercetin-3-O-rutinoside-7-O-rhamnoside | Flavonoids | Flavonols |
| C33H40O20 | Kaempferol-3-O-(6''-Rhamnosyl-2''-Glucosyl)Glucoside (Camelliaside A) | Flavonoids | Flavonols |
| C33H40O20 | Quercetin-3-O-(2''-O-Rhamnosyl)rutinoside | Flavonoids | Flavonols |
| C34H42O20 | Rhamnetin-3-O-Rutinoside-5-O-rhamnoside\* | Flavonoids | Flavonols |
| C34H42O20 | Isorhamnetin-3-O-rutinoside-7-O-rhamnoside\* | Flavonoids | Flavonols |
| C33H40O21 | 6-Hydroxykaempferol 3-Rutinoside -6-glucoside | Flavonoids | Flavonols |
| C33H40O21 | Kaempferol-3-O-sophorotrioside | Flavonoids | Flavonols |
| C33H40O22 | 6-Hydroxykaempferol-3,7,6-O-triglycoside | Flavonoids | Flavonols |
| C45H38O18 | Catechin-catechin-catechin | Flavonoids | Flavanols |
| C15H10O4 | Daidzein | Flavonoids | Isoflavones |

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| **Table S3. Summary Statistics of Results during *Actinidia arguta* fruit maturity** |
| Sample | Raw Reads | Clean Reads | Clean Base(G) | Error Rate(%) | Q20(%) | Q30(%) | GC Content(%) |
| Lc2-1 | 43976908 | 41844326 | 6.28 | 0.03 | 97.66 | 93.28 | 47.32 |
| Lc2-2 | 47501280 | 45998202 | 6.9 | 0.03 | 97.11 | 91.94 | 47.21 |
| Lc2-3 | 48528214 | 46501380 | 6.98 | 0.03 | 97.11 | 92 | 47.27 |
| Qssg-1 | 51274090 | 48936740 | 7.34 | 0.03 | 97.67 | 93.32 | 47.98 |
| Qssg-2 | 46897420 | 44743014 | 6.71 | 0.03 | 97.16 | 92.15 | 47.62 |
| Qssg-3 | 43580384 | 41708692 | 6.26 | 0.03 | 96.87 | 91.49 | 47.4 |

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| **Table S4. List of GO enrichment of DEGs during *Actinidia arguta* fruit maturity** |
| Ontology | ID | Description | Count | GeneRatio |
| Cellular component | GO:0016020 | membrane | 3590 | 3590/11650 |
| Cellular component | GO:0005576 | extracellular region | 380 | 380/11650 |
| Cellular component | GO:0005623 | cell | 6598 | 6598/11650 |
| Cellular component | GO:0009295 | nucleoid | 10 | 10/11650 |
| Cellular component | GO:0030054 | cell junction | 387 | 387/11650 |
| Cellular component | GO:0031974 | membrane-enclosed lumen | 403 | 403/11650 |
| Cellular component | GO:0032991 | protein-containing complex | 883 | 883/11650 |
| Cellular component | GO:0043226 | organelle | 4909 | 4909/11650 |
| Cellular component | GO:0044215 | other organism | 1 | 1/11650 |
| Cellular component | GO:0044217 | other organism part | 1 | 1/11650 |
| Cellular component | GO:0044421 | extracellular region part | 55 | 55/11650 |
| Cellular component | GO:0044422 | organelle part | 2204 | 2204/11650 |
| Cellular component | GO:0044425 | membrane part | 2674 | 2674/11650 |
| Cellular component | GO:0044464 | cell part | 6594 | 6594/11650 |
| Cellular component | GO:0055044 | symplast | 387 | 387/11650 |
| Cellular component | GO:0099080 | supramolecular complex | 115 | 115/11650 |
| Biological process | GO:0000003 | reproduction | 726 | 726/11650 |
| Biological process | GO:0008152 | metabolic process | 4700 | 4700/11650 |
| Biological process | GO:0001906 | cell killing | 10 | 10/11650 |
| Biological process | GO:0002376 | immune system process | 284 | 284/11650 |
| Biological process | GO:0006791 | sulfur utilization | 1 | 1/11650 |
| Biological process | GO:0040007 | growth | 309 | 309/11650 |
| Biological process | GO:0008283 | cell proliferation | 31 | 31/11650 |
| Biological process | GO:0009987 | cellular process | 5343 | 5343/11650 |
| Biological process | GO:0015976 | carbon utilization | 4 | 4/11650 |
| Biological process | GO:0019740 | nitrogen utilization | 2 | 2/11650 |
| Biological process | GO:0022414 | reproductive process | 722 | 722/11650 |
| Biological process | GO:0022610 | biological adhesion | 17 | 17/11650 |
| Biological process | GO:0023052 | signaling | 1080 | 1080/11650 |
| Biological process | GO:0032501 | multicellular organismal process | 1231 | 1231/11650 |
| Biological process | GO:0032502 | developmental process | 1347 | 1347/11650 |
| Biological process | GO:0040011 | locomotion | 18 | 18/11650 |
| Biological process | GO:0043473 | pigmentation | 1 | 1/11650 |
| Biological process | GO:0048511 | rhythmic process | 114 | 114/11650 |
| Biological process | GO:0048518 | positive regulation of biological process | 509 | 509/11650 |
| Biological process | GO:0048519 | negative regulation of biological process | 590 | 590/11650 |
| Biological process | GO:0050789 | regulation of biological process | 2442 | 2442/11650 |
| Biological process | GO:0050896 | response to stimulus | 2939 | 2939/11650 |
| Biological process | GO:0051179 | localization | 989 | 989/11650 |
| Biological process | GO:0051704 | multi-organism process | 728 | 728/11650 |
| Biological process | GO:0065007 | biological regulation | 2704 | 2704/11650 |
| Biological process | GO:0071840 | cellular component organization or biogenesis | 1077 | 1077/11650 |
| Biological process | GO:0098754 | detoxification | 16 | 16/11650 |
| Molecular function | GO:0140110 | transcription regulator activity | 734 | 734/11650 |
| Molecular function | GO:0003824 | catalytic activity | 4376 | 4376/11650 |
| Molecular function | GO:0045735 | nutrient reservoir activity | 34 | 34/11650 |
| Molecular function | GO:0005198 | structural molecule activity | 150 | 150/11650 |
| Molecular function | GO:0005215 | transporter activity | 518 | 518/11650 |
| Molecular function | GO:0005488 | binding | 4940 | 4940/11650 |
| Molecular function | GO:0031386 | protein tag | 1 | 1/11650 |
| Molecular function | GO:0016209 | antioxidant activity | 63 | 63/11650 |
| Molecular function | GO:0098772 | molecular function regulator | 171 | 171/11650 |
| Molecular function | GO:0045182 | translation regulator activity | 1 | 1/11650 |
| Molecular function | GO:0060089 | molecular transducer activity | 164 | 164/11650 |
| Molecular function | GO:0140104 | molecular carrier activity | 10 | 10/11650 |

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| **Table S5. List of KEGG pathway enrichment of DEGs during**Actinidia arguta fruit maturity |
| **Qssg vs Lc** |
|  **Total\_gene** | 4024 |
| **Pathway** | **ko\_id** | **DEG No.** |
| Metabolic pathways | ko01100 | 1766 |
| Biosynthesis of secondary metabolites | ko01110 | 1007 |
| MAPK signaling pathway - plant | ko04016 | 284 |
| Starch and sucrose metabolism | ko00500 | 207 |
| Plant hormone signal transduction | ko04075 | 356 |
| Phenylpropanoid biosynthesis | ko00940 | 103 |
| Plant-pathogen interaction | ko04626 | 402 |
| Sesquiterpenoid and triterpenoid biosynthesis | ko00909 | 31 |
| Cyanoamino acid metabolism | ko00460 | 42 |
| Cysteine and methionine metabolism | ko00270 | 115 |
| Glycosaminoglycan degradation | ko00531 | 38 |
| Glycosphingolipid biosynthesis - ganglio series | ko00604 | 28 |
| alpha-Linolenic acid metabolism | ko00592 | 38 |
| Terpenoid backbone biosynthesis | ko00900 | 50 |
| Flavonoid biosynthesis | ko00941 | 35 |
| Cutin, suberine and wax biosynthesis | ko00073 | 21 |
| Synthesis and degradation of ketone bodies | ko00072 | 13 |
| Diterpenoid biosynthesis | ko00904 | 25 |
| Butanoate metabolism | ko00650 | 24 |
| Monoterpenoid biosynthesis | ko00902 | 15 |
| Pentose and glucuronate interconversions | ko00040 | 82 |
| Stilbenoid, diarylheptanoid and gingerol biosynthesis | ko00945 | 19 |
| Alanine, aspartate and glutamate metabolism | ko00250 | 44 |
| Other glycan degradation | ko00511 | 49 |
| Valine, leucine and isoleucine degradation | ko00280 | 58 |
| Glutathione metabolism | ko00480 | 57 |
| Phenylalanine, tyrosine and tryptophan biosynthesis | ko00400 | 48 |
| Linoleic acid metabolism | ko00591 | 19 |
| Photosynthesis - antenna proteins | ko00196 | 18 |
| Glucosinolate biosynthesis | ko00966 | 7 |
| Glycerolipid metabolism | ko00561 | 70 |
| Selenocompound metabolism | ko00450 | 18 |
| Arachidonic acid metabolism | ko00590 | 24 |
| Isoquinoline alkaloid biosynthesis | ko00950 | 27 |
| Glycerophospholipid metabolism | ko00564 | 89 |
| Glyoxylate and dicarboxylate metabolism | ko00630 | 74 |
| Tropane, piperidine and pyridine alkaloid biosynthesis | ko00960 | 26 |
| Isoflavonoid biosynthesis | ko00943 | 18 |
| Biosynthesis of unsaturated fatty acids | ko01040 | 16 |
| Galactose metabolism | ko00052 | 76 |
| Ether lipid metabolism | ko00565 | 33 |
| Nitrogen metabolism | ko00910 | 18 |
| Carotenoid biosynthesis | ko00906 | 27 |
| Biosynthesis of amino acids | ko01230 | 185 |
| Phosphatidylinositol signaling system | ko04070 | 69 |
| ABC transporters | ko02010 | 60 |
| Glycosphingolipid biosynthesis - lacto and neolacto series | ko00601 | 3 |
| Fructose and mannose metabolism | ko00051 | 66 |
| Benzoxazinoid biosynthesis | ko00402 | 10 |
| Zeatin biosynthesis | ko00908 | 23 |
| Sphingolipid metabolism | ko00600 | 42 |
| Brassinosteroid biosynthesis | ko00905 | 11 |
| Indole alkaloid biosynthesis | ko00901 | 7 |
| Pantothenate and CoA biosynthesis | ko00770 | 27 |
| Amino sugar and nucleotide sugar metabolism | ko00520 | 124 |
| Phenylalanine metabolism | ko00360 | 35 |
| Steroid biosynthesis | ko00100 | 23 |
| Phosphonate and phosphinate metabolism | ko00440 | 5 |
| beta-Alanine metabolism | ko00410 | 37 |
| Ubiquinone and other terpenoid-quinone biosynthesis | ko00130 | 33 |
| Sulfur metabolism | ko00920 | 21 |
| Flavone and flavonol biosynthesis | ko00944 | 6 |
| Inositol phosphate metabolism | ko00562 | 56 |
| Glycine, serine and threonine metabolism | ko00260 | 54 |
| Tyrosine metabolism | ko00350 | 35 |
| Aflatoxin biosynthesis | ko00254 | 3 |
| One carbon pool by folate | ko00670 | 18 |
| Taurine and hypotaurine metabolism | ko00430 | 7 |
| Nicotinate and nicotinamide metabolism | ko00760 | 21 |
| Arginine biosynthesis | ko00220 | 18 |
| Protein processing in endoplasmic reticulum | ko04141 | 225 |
| Carbon fixation in photosynthetic organisms | ko00710 | 68 |
| Peroxisome | ko04146 | 67 |
| Caffeine metabolism | ko00232 | 2 |
| Arginine and proline metabolism | ko00330 | 41 |
| Porphyrin and chlorophyll metabolism | ko00860 | 37 |
| Glycosphingolipid biosynthesis - globo and isoglobo series | ko00603 | 4 |
| Anthocyanin biosynthesis | ko00942 | 4 |
| Mannose type O-glycan biosynthesis | ko00515 | 1 |
| Fatty acid metabolism | ko01212 | 43 |
| Ascorbate and aldarate metabolism | ko00053 | 29 |
| Monobactam biosynthesis | ko00261 | 9 |
| Fatty acid degradation | ko00071 | 26 |
| Biotin metabolism | ko00780 | 13 |
| Valine, leucine and isoleucine biosynthesis | ko00290 | 8 |
| Thiamine metabolism | ko00730 | 14 |
| Riboflavin metabolism | ko00740 | 12 |
| Pyrimidine metabolism | ko00240 | 46 |
| Other types of O-glycan biosynthesis | ko00514 | 10 |
| N-Glycan biosynthesis | ko00510 | 40 |
| Phagosome | ko04145 | 68 |
| Lysine biosynthesis | ko00300 | 8 |
| Fatty acid elongation | ko00062 | 10 |
| Basal transcription factors | ko03022 | 26 |
| Base excision repair | ko03410 | 22 |
| Pentose phosphate pathway | ko00030 | 40 |
| Tryptophan metabolism | ko00380 | 32 |
| Citrate cycle (TCA cycle) | ko00020 | 47 |
| Carbon metabolism | ko01200 | 190 |
| Fatty acid biosynthesis | ko00061 | 24 |
| Ubiquitin mediated proteolysis | ko04120 | 136 |
| 2-Oxocarboxylic acid metabolism | ko01210 | 28 |
| Propanoate metabolism | ko00640 | 22 |
| Purine metabolism | ko00230 | 69 |
| Endocytosis | ko04144 | 160 |
| Protein export | ko03060 | 39 |
| Sulfur relay system | ko04122 | 3 |
| Betalain biosynthesis | ko00965 | 2 |
| Vitamin B6 metabolism | ko00750 | 4 |
| Folate biosynthesis | ko00790 | 11 |
| Limonene and pinene degradation | ko00903 | 2 |
| Non-homologous end-joining | ko03450 | 1 |
| C5-Branched dibasic acid metabolism | ko00660 | 1 |
| Glycolysis / Gluconeogenesis | ko00010 | 83 |
| Photosynthesis | ko00195 | 21 |
| Pyruvate metabolism | ko00620 | 67 |
| Circadian rhythm - plant | ko04712 | 44 |
| Various types of N-glycan biosynthesis | ko00513 | 22 |
| Lipoic acid metabolism | ko00785 | 1 |
| Aminoacyl-tRNA biosynthesis | ko00970 | 35 |
| RNA polymerase | ko03020 | 14 |
| Histidine metabolism | ko00340 | 4 |
| Glycosylphosphatidylinositol (GPI)-anchor biosynthesis | ko00563 | 8 |
| DNA replication | ko03030 | 12 |
| Ribosome biogenesis in eukaryotes | ko03008 | 58 |
| Nucleotide excision repair | ko03420 | 23 |
| Oxidative phosphorylation | ko00190 | 64 |
| Lysine degradation | ko00310 | 17 |
| Mismatch repair | ko03430 | 9 |
| SNARE interactions in vesicular transport | ko04130 | 17 |
| RNA degradation | ko03018 | 62 |
| Homologous recombination | ko03440 | 22 |
| Proteasome | ko03050 | 32 |
| Spliceosome | ko03040 | 151 |
| Autophagy - other | ko04136 | 14 |
| mRNA surveillance pathway | ko03015 | 68 |
| Ribosome | ko03010 | 107 |
| RNA transport | ko03013 | 83 |

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| **Table S6. List of significantly enriched KEGG pathways of DEGs during**Actinidia arguta fruit maturity |
| **Qssg vs Lc** |
| **Kegg\_pathway** | **ko\_id** | **P-value** |
| Metabolic pathways | ko01100 | 0.000000000  |
| Biosynthesis of secondary metabolites | ko01110 | 0.000000000  |
| MAPK signaling pathway - plant | ko04016 | 0.000000000  |
| [Starch and sucrose metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00500.html) | ko00500 | 0.000000001  |
| [Plant hormone signal transduction](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko04075.html) | ko04075 | 0.000000001  |
| [Phenylpropanoid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00940.html) | ko00940 | 0.000000002  |
| [Plant-pathogen interaction](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko04626.html) | ko04626 | 0.000000054  |
| [Sesquiterpenoid and triterpenoid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00909.html) | ko00909 | 0.000000067  |
| [Cyanoamino acid metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00460.html) | ko00460 | 0.000033405  |
| [Cysteine and methionine metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00270.html) | ko00270 | 0.000035482  |
| [Glycosaminoglycan degradation](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00531.html) | ko00531 | 0.000876133 |
| [Glycosphingolipid biosynthesis - ganglio series](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00604.html) | ko00604 | 0.001037804 |
| [alpha-Linolenic acid metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00592.html) | ko00592 | 0.001205077 |
| [Terpenoid backbone biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00900.html) | ko00900 | 0.001584722 |
| [Flavonoid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00941.html) | ko00941 | 0.001635585 |
| [Cutin, suberine and wax biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00073.html) | ko00073 | 0.001657583 |
| [Synthesis and degradation of ketone bodies](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00072.html) | ko00072 | 0.001689141 |
| [Diterpenoid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00904.html) | ko00904 | 0.002002703 |
| [Butanoate metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00650.html) | ko00650 | 0.003666692 |
| [Monoterpenoid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00902.html) | ko00902 | 0.003808836 |
| [Pentose and glucuronate interconversions](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00040.html) | ko00040 | 0.005000041 |
| [Stilbenoid, diarylheptanoid and gingerol biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00945.html) | ko00945 | 0.005054709 |
| [Alanine, aspartate and glutamate metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00250.html) | ko00250 | 0.006093694 |
| [Other glycan degradation](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00511.html) | ko00511 | 0.007389909 |
| [Valine, leucine and isoleucine degradation](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00280.html) | ko00280 | 0.007785754 |
| [Glutathione metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00480.html) | ko00480 | 0.008340556 |
| [Phenylalanine, tyrosine and tryptophan biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00400.html) | ko00400 | 0.008765574 |
| [Linoleic acid metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00591.html) | ko00591 | 0.013222159 |
| [Photosynthesis - antenna proteins](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00196.html) | ko00196 | 0.013829013 |
| [Glucosinolate biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00966.html) | ko00966 | 0.01551566 |
| [Glycerolipid metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00561.html) | ko00561 | 0.018540377 |
| [Selenocompound metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00450.html) | ko00450 | 0.019562351 |
| [Arachidonic acid metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00590.html) | ko00590 | 0.021050219 |
| [Isoquinoline alkaloid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00950.html) | ko00950 | 0.02211674 |
| [Glycerophospholipid metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00564.html) | ko00564 | 0.023083063 |
| [Glyoxylate and dicarboxylate metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00630.html) | ko00630 | 0.024573002 |
| [Tropane, piperidine and pyridine alkaloid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00960.html) | ko00960 | 0.026807536 |
| [Isoflavonoid biosynthesis](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00943.html) | ko00943 | 0.026965742 |
| [Biosynthesis of unsaturated fatty acids](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko01040.html) | ko01040 | 0.030429475 |
| [Galactose metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00052.html) | ko00052 | 0.037660903 |
| [Ether lipid metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00565.html) | ko00565 | 0.041447636 |
| [Nitrogen metabolism](file:///D%3A%5C%25E7%258E%258B%25E7%25A6%25B9%25E5%258D%259A%5C%25E7%25A6%25B9%25E5%258D%259A%25E5%258D%259A%25E5%25A3%25AB%25E5%258F%2591%25E8%25A1%25A8%25E6%2596%2587%25E7%25AB%25A0%5C%25E5%258F%2591%25E8%25A1%25A8SCI%25E6%2596%2587%25E7%25AB%25A0%5C2021%5C%25E6%2580%25BB%25E5%258C%2596%25E5%2590%2588%25E7%2589%25A9%25E8%25BD%25AC%25E5%25BD%2595%25E4%25BB%25A3%25E8%25B0%25A2%25E5%258F%258A%25E8%2581%2594%25E5%2590%2588%25E5%2588%2586%25E6%259E%2590%5CMWXS-21-2190D_%25E8%25BE%25BD%25E5%25AE%2581%25E7%259C%2581%25E7%25A7%2591%25E6%258A%2580%25E5%25A4%25A7%25E5%25AD%25A66%25E4%25B8%25AA%25E8%25BD%25AF%25E6%259E%25A3%25E7%258C%2595%25E7%258C%25B4%25E6%25A1%2583%25E8%25BD%25AC%25E5%25BD%2595%25E7%25BB%2584%25E6%25B5%258B%25E5%25BA%258F%25E6%258A%2580%25E6%259C%25AF%25E6%259C%258D%25E5%258A%25A1%25E6%258A%25A5%25E5%2591%258A_20211126%5CMWXS-21-2190D%5C06.Differential_analysis%5CLc2_vs_Qssg%5Cpathway_enrichment%5Cmaps%5Cko00910.html) | ko00910 | 0.047790018 |

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| **Table S7. List of differential expression structural genes of flavonoid during**Actinidia arguta fruit maturity |
| **Gene Name** | **Gene ID** | **Qssg vs Lc** |
|  **FDR** |  **Log2FC** |  **up/down** |
| CsUGT134 | Cluster-10307.10035 | 7.84E-07 | 5.531302184 |  up |
|  | Cluster-10307.5267 | 5.53E-44 | 13.18206007 |  up |
|  | Cluster-10307.64523 | 7.98E-02 | 1.408579684 |  up |
| LOC | Cluster-10307.11602 | 3.60E-03 | 1.812441233 |  up |
|  | Cluster-10307.5031 | 1.60E-01 | 2.708097664 |  up |
|  | Cluster-10307.5032 | 1.26E-02 | 2.847410903 |  up |
|  | Cluster-10307.81571 | 3.52E-05 | 8.267330484 |  up |
|  | Cluster-10307.81683 | 9.61E-02 | 1.662784198 |  up |
|  | Cluster-10307.81775 | 5.06E-03 | 3.330591929 |  up |
|  | Cluster-10307.83164 | 7.71E-11 | 5.180850163 |  up |
|  | Cluster-10307.21303 | 2.49E-04 | 2.617072211 |  up |
|  | Cluster-10307.40598 | 6.55E-06 | 3.008927706 |  up |
|  | Cluster-10307.4971 | 8.13E-05 | 5.517407602 |  up |
|  | Cluster-10307.5021 | 6.36E-10 | 8.366147047 |  up |
|  | Cluster-10307.79869 | 4.86E-02 | 2.124818922 |  up |
|  | Cluster-10307.2791 | 6.99E-07 | 5.455421897 |  up |
|  | Cluster-10307.34524 | 1.70E-01 | 1.99958463 |  up |
|  | Cluster-10307.32442 | 2.40E-06 | 3.138070957 |  up |
|  | Cluster-7157.0 | 5.92E-03 | -3.558176866 |  down |
| AT2 | Cluster-10307.49831 | 5.20E-06 | 1.927054282 |  up |
|  | Cluster-10307.55417 | 3.36E-05 | 5.55595824 |  up |
| CHS | Cluster-10307.82854 | 1.96E-02 | 2.137382746 |  up |
| C4Ha | Cluster-10307.25395 | 5.78E-05 | 2.558402847 |  up |
|  | Cluster-10307.4519 | 2.22E-03 | 4.572769334 |  up |
|  | Cluster-10307.21895 | 1.34E-01 | -1.676459595 |  down |
| HCT | Cluster-10307.83910 | 6.31E-03 | 4.621369836 |  up |
| CCoAOMT | Cluster-10307.82368 | 4.26E-05 | 4.254278345 |  up |
| F3H | Cluster-10307.23258 | 3.49E-02 | 1.576185258 |  up |
| LAR2 | Cluster-10307.9753 | 2.33E-04 | 2.124519835 |  up |
|  | Cluster-10307.79653 | 1.89E-02 | 2.49867932 |  up |
|  | Cluster-10307.78333 | 1.24E-01 | -1.753436506 |  down |
| GSCOC | Cluster-6365.0 | 3.90E-02 | 2.189608881 |  up |
| CFOL | Cluster-10307.10288 | 3.74E-02 | -2.541402034 |  down |
|  | Cluster-10307.49896 | 6.68E-02 | -1.143582386 |  down |
| CHI | Cluster-10307.69071 | 6.94E-02 | -1.174201473 |  down |
| DFR | Cluster-10307.30160 | 1.35E-02 | -1.961688526 |  down |
| LSAT | Cluster-10307.44404 | 8.40E-02 | -2.366982942 |  down |

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| **Table S8. List of relativity between differential expression structural genes of flavonoid and differential accumulation flavonoid metabolites** |
| **GeneName** | **Gene ID** | **Index** | **Compounds** | **Correlation coefficent** |
|
| CsUGT134 | Cluster-10307.5267 | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.821465886 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.996874832 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.836259553 |
|  | Cluster-10307.10035 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.857463558 |
| DFR | Cluster-10307.30160 | mws1179 | Naringenin-7-O-glucoside (Prunin) | 0.876974935 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | 0.918558127 |
| LAR2 | Cluster-10307.9753 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.837489463 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.88435483 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.967289185 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.91938102 |
| C4Ha | Cluster-10307.4519 | MWSHY0189 | Apigenin-7-O-glucoside(Cosmosiin) | -0.919072282 |
|  |  | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.942888373 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.857174703 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.830994953 |
| CFOL | Cluster-10307.10288 | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | 0.902000449 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | 0.910565548 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | 0.945820818 |
|  | Cluster-10307.49896 | mws1179 | Naringenin-7-O-glucoside (Prunin) | 0.85065959 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | 0.830004746 |
|  |  | MWSHY0080 | Luteolin-7-O-neohesperidoside (Lonicerin) | -0.834744123 |
|  |  | MWSHY0050 | Kaempferol-3-O-rutinoside(Nicotiflorin)\* | -0.874751561 |
| CHI | Cluster-10307.69071 | mws1179 | Naringenin-7-O-glucoside (Prunin) | 0.811405756 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | 0.868538263 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | 0.96459718 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | 0.819786618 |
| LOC | Cluster-10307.11602 | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.815605411 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.849260277 |
|  | Cluster-10307.81571 | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.830521144 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.991190951 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.874657103 |
|  | Cluster-10307.81775 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.919532017 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.898044688 |
|  | Cluster-10307.21303 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.916155147 |
|  |  | MWSHY0080 | Luteolin-7-O-neohesperidoside (Lonicerin) | 0.832039569 |
|  |  | MWSHY0050 | Kaempferol-3-O-rutinoside(Nicotiflorin)\* | 0.849149109 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.886916962 |
|  | Cluster-10307.32442 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.849077696 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.877893374 |
|  | Cluster-10307.40598 | MWSHY0189 | Apigenin-7-O-glucoside(Cosmosiin) | -0.825698961 |
|  |  | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.926268527 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.836988205 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.95357033 |
|  | Cluster-10307.4971 | MWSHY0080 | Luteolin-7-O-neohesperidoside (Lonicerin) | 0.819795224 |
|  |  | MWSHY0050 | Kaempferol-3-O-rutinoside(Nicotiflorin)\* | 0.833462753 |
|  | Cluster-10307.79869 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.840077688 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.884097743 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.989325427 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.875537894 |
|  | Cluster-10307.2791 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.847873631 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.8236496 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.997148403 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.815126575 |
| GSCOC | Cluster-6365.0 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.887148492 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.941123088 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.956670081 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.824837232 |
| CCoAOMT | Cluster-10307.82368 | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.848762541 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.920764139 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.817958873 |
| AT2 | Cluster-10307.49831 | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.898255398 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.94678871 |
|  |  | MWSHY0080 | Luteolin-7-O-neohesperidoside (Lonicerin) | 0.81175841 |
|  |  | MWSHY0050 | Kaempferol-3-O-rutinoside(Nicotiflorin)\* | 0.846579319 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.954909876 |
|  |  | Hmcp001618 | Quercetin-3-O-(2''-O-Xylosyl)rutinoside | -0.895789995 |
|  | Cluster-10307.55417 | MWSHY0189 | Apigenin-7-O-glucoside(Cosmosiin) | -0.864850539 |
|  |  | mws1179 | Naringenin-7-O-glucoside (Prunin) | -0.939367429 |
|  |  | Lmlp006175 | Isosalipurposide (Phlorizin Chalcone) | -0.853841879 |
|  |  | Lmjp002596 | Quercetin-3-O-sambubioside\* | -0.8870022 |