Supplementary Material

# 1 supplementary Figures and Tables

# 1.1 supplementary Figures

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**Supplementary Figure 1.** Expression of partial DEGs in RNA-seq and qRT-PCR. (A) H-36 h vs C-36 h (0.5 g/L vs Control), (B) L-36 h vs C-36 h (0.25 g/L vs Control), (C) L-36 h vs H-36 h (0.25 g/L vs 0.5 g/L).

## 1.2 supplementary Tables

**Supplementary Table 1.** Genes and references used for fluorescence quantitative PCR.

| Gene | Primer | Primer sequence (5’→3’) |
| --- | --- | --- |
| ACT（reference gene） | Forward | TTCCGGCGATGTACGTTG |
| Reverse | TAGGCACAGTGTGTGACACGC |
| TRINITY\_DN120832\_c2\_g2 | Forward | CAGAGAAGATAGCAATTACAGC |
| Reverse | CTGTGGATCTAGGATTACATGATAC |
| TRINITY\_DN121625\_c3\_g1 | Forward | ACACGCAGAAGCCTTTA |
| Reverse | ATCTGAAGAGGACAAGGATATG |
| TRINITY\_DN119431\_c4\_g1 | Forward | CCAAGATCCAGGACAAGG |
| Reverse | TTTGGATGTTGTAGTCCGAGA |
| TRINITY\_DN178485\_c4\_g6 | Forward | GAACCTGTAGCAGGTAGTC |
| Reverse | TGAACACCTATTGCATTAGAGC |
| TRINITY\_DN167398\_c1\_g1 | Forward | CCCTAAGCAAGGTGCAAC |
| Reverse | CTGATGTCGCCGTATGTG |
| TRINITY\_DN178513\_c3\_g2 | Forward | TCAAGGGTCTCCAGAAGT |
| Reverse | ATCCTGTTCCACCTCCAA |
| TRINITY\_DN110710\_c1\_g1 | Forward | GATCAGCTAATTCATTGCTGG |
| Reverse | CCATCAGCTTCGAGGAC |
| TRINITY\_DN119279\_c1\_g1 | Forward | CGACATGAAGGGCTTCT |
| Reverse | GAAGGTGCTGGAGATGG |
| TRINITY\_DN115708\_c0\_g1 | Forward | ATTCAGTATCTCGGAGGGAG |
| Reverse | GCTGTTGGGTACATGCC |

**Supplementary Table 2.** Peak time (Pt), name of compounds (NCs), molecular formula (MF), mass-to-charge ratio (m/z), and peak area (PA, %) in N-hexane phase of MPE.

| NCs | Pt (min) | | m/z | MF | PA (%) |
| --- | --- | --- | --- | --- | --- |
| 3-O-talopyranosylmannopyranoside | | 1.5 | 341.1089 | C12H21O11 | 4.69 |
| 3-deoxy-D-manno-octulosonate | | 1.8 | 237.0613 | C8H13O8 | 4.01 |
| 2-acetamido-2-(4-nitrosooxan-4-yl) propanoate | | 2.3 | 243.0983 | C10H15N2O5 | 0.83 |
| 5,7-diacetamido-3,5,7,9-tetradeoxy-L-glycero-α-L-manno-non-2-ulopyranosonate | | 2.4 | 333.1305 | C13H21N2O8 | 0.36 |
| 4-[3-[2-(4-hydroxyphenyl) ethenyl]-10-methylacridin-10-ium-9-carbonyl] oxy-3,5-dimethylbenzoic acid | | 2.7 | 504.1824 | C32H26NO5 | 0.51 |
| Glutamate-Hydroxyproline dipeptide | | 2.9 | 259.0932 | C10H15N2O6 | 4.57 |
| 2-[[4-[naphthalen-2-yl(phenyl)carbamoyl] phenyl] carbamoyl] benzoate | | 3.7 | 485.1514 | C31H21N2O4 | 0.96 |
| 4-[bis(1H-indol-3-yl) methyl] benzoate | | 5.7 | 365.1291 | C24H17N2O2 | 0.42 |
| 1-[5-(3-propylimidazole-3-gallium-1-yl) heptane-3-yl] pyrrolidine-2-one | | 7.5 | 372.2134 | C17H30N3O | 0.25 |
| 6-(6-Aminohexanamido) hexanoate | | 7.8 | 243.1709 | C12H23N2O3 | 0.23 |
| 2-(3,3-dimethyl-2-oxopentanoyl) pyrazolidine-1-carboxylate | | 11 | 241.1190 | C11H17N2O4 | 2.19 |