

S8 Table. Expression values of putative fatty acid-oxidation genes and gene products in *P. putida* LS46 grown in waste fatty acids (WFA) cultures during exponential phase, and variations in their expression levels under two conditions.

| Clusters | Locus Tag | Gene symbol/annotation | DNA seq length (nt) | R ^a | P ^a | Waste glycerol Sta vs Exp | | Waste fatty acid vs Waste glycerol (Exp) | |
|----------|-----------------|---------------------------------------|---------------------|----------------|----------------|------------------------------|-------|--|-------|
| | | | | | | Rnet | Pnet | Rnet | Pnet |
| 1 | PPUTLS46_004399 | fadB | 2148 | 16.1 | 25.5 | 1.54 | 0.52 | 4.4 | 4.65 |
| | PPUTLS46_004404 | fadA | 1176 | 15.6 | 24.7 | 0.46 | -0.69 | 3.79 | 4.8 |
| 2 | PPUTLS46_007434 | fadB1X | 774 | 9.7 | 20.2 | 0.06 | 0.02 | -0.33 | 0.03 |
| | PPUTLS46_007429 | fadEx | 1128 | nr | nr | nc | nc | nc | nc |
| | PPUTLS46_007424 | fadAx | 1194 | nr | nr | nc | nc | nc | nc |
| | PPUTLS46_007419 | fadB2x | 768 | nr | nr | nc | nc | nc | nc |
| | PPUTLS46_007414 | fadDx | 1674 | 7.7 | nr | 1.06 | nc | -0.57 | nc |
| 3 | PPUTLS46_000695 | 3-hydroxybutyryl-CoA epimerase | 1239 | 10.4 | nr | 1.33 | nc | 0.23 | nc |
| | PPUTLS46_000700 | Acyl-CoA dehydrogenase putative | 1776 | 8.5 | nr | 0.08 | -1.68 | -1.33 | nc |
| | PPUTLS46_000705 | Alcohol dehydrogenase iron-containing | 1164 | 7.1 | nr | nc | nc | -1.58 | nc |
| | PPUTLS46_000710 | Thioesterase superfamily protein | 453 | 6 | nr | -0.01 | nc | -0.95 | nc |
| | PPUTLS46_000715 | Acetyl-CoA acetyltransferase | 1185 | 8 | nr | 0.03 | -1.86 | -1.02 | nc |
| 4 | PPUTLS46_026256 | TetR family transcriptional regulator | 582 | 9.6 | nr | -0.04 | nc | 1.56 | nc |
| | PPUTLS46_026251 | 3-hydroxybutyryl-CoA dehydrogenase | 849 | 11.1 | 16.7 | nc | nc | 1.73 | 2.19 |
| | PPUTLS46_026246 | beta-ketothiolase | 1185 | 11.7 | 20.8 | 0.06 | 0.47 | 1.66 | 1.76 |
| Others | PPUTLS46_012993 | acetyl-CoA acetyltransferase | 1179 | 11.8 | 23.1 | -0.6 | 0.53 | 7.51 | 6.7 |
| | PPUTLS46_003422 | 3-hydroxybutyrate dehydrogenase | 771 | 10.81 | 19.24 | nc | nc | 3.84 | nc |
| | PPUTLS46_006916 | acyl-CoA thioesterase II | 870 | 10.05 | 14.51 | -0.2 | 0.03 | -0.2 | -0.39 |
| | PPUTLS46_009584 | Acyl-CoA thioesterase-like protein | 798 | 10.2 | 19.1 | -0.64 | 0.79 | 0.16 | 3.71 |

^a: The log₂ value of RNA and Protein expression abundance of *P. putida* LS46 grown in waste fatty acid derived culture at 8hrs post-inocula. RNA or Protein that were either not detected or only observed in one biological replicate were not reported for comparative analysis, and therefore no Rnet and Pnet value calculated. nr: not reported. nc: not calculated.

Exp: Exponential culture; Sta: Stationary culture. Green shading: significantly up-regulated; Red shading: significantly down-regulated.