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|  |  | FluxPyt optimal solution |
| R01 | GLC\_EX -> GLC6P | 106.00 |
| R02 | GLC6P -> TREM | 1.52 |
| R03 | GLC6P -> F6P | 118.24 |
| R04 | F6P -> GLC6P | 63.53 |
| R05 | F6P -> F16BP | 79.51 |
| R06 | F16BP -> DHAP + G3P | 79.51 |
| R07 | DHAP -> G3P | 79.51 |
| R08 | GLC6P -> P5P + CO2 | 48.25 |
| R09 | P5P + P5P -> S7P + G3P | 34.85 |
| R10 | S7P + G3P -> P5P + P5P | 20.20 |
| R11 | S7P + G3P -> E4P + F6P | 44.28 |
| R12 | E4P + F6P -> S7P + G3P | 29.64 |
| R13 | E4P + P5P -> F6P + G3P | 36.49 |
| R14 | F6P + G3P -> E4P + P5P | 24.05 |
| R15 | G3P -> 3PG | 170.87 |
| R16 | 3PG -> PYR | 159.91 |
| R17 | PYR -> ACCOA + CO2 | 89.65 |
| R18 | ACCOA + OAA -> CIT | 65.46 |
| R19 | CIT -> AKG + CO2 | 65.46 |
| R20 | AKG -> 0.5 SUC + 0.5 SUC + CO2 | 54.58 |
| R21 | SUC -> OAA | 54.58 |
| R22 | PYR + CO2 -> OAA | 64.10 |
| R23 | OAA -> PYR + CO2 | 29.57 |
| R24 | OAA + PYR -> LYS + CO2 | 10.89 |
| R25 | 3PG -> SER | 0.19 |
| R26 | SER -> GLY + MTHF | 0.19 |
| R27 | PYR -> LAC | 0.09 |
| R28 | OAA -> THR | 0.02 |
| R29 | THR -> GLY + ACETAL | 0.02 |
| R30 | CO2 -> CO2\_EX | 315.26 |
| R31 | CO2\_EX -> CO2 | 67.38 |
| R32 | LYS -> LYS\_EX | 8.19 |
| R33 | LYS -> LYSDAP\_B | 2.71 |
| R34 | GLY -> GLY\_EX | 0.21 |
| R35 | TREM + TREM -> TRE\_EX | 0.76 |
| R36 | AKG -> AKG\_EX | 1.72 |
| R37 | AKG -> AKG\_B | 9.16 |
| R38 | ACETAL -> ACETAL\_EX | 0.02 |
| R39 | LAC -> LAC\_EX | 0.09 |
| R40 | GLC6P -> GLC6P\_B | 1.52 |
| R41 | F6P -> F6P\_B | 2.27 |
| R42 | P5P -> P5P\_B | 6.53 |
| R43 | E4P -> E4P\_B | 2.21 |
| R44 | G3P -> G3P\_B | 1.04 |
| R45 | 3PG -> 3PG\_B | 10.76 |
| R46 | PYR -> PYR\_B | 25.21 |
| R47 | OAA -> OAA\_B | 12.74 |
| R48 | ACCOA -> ACCOA\_B | 24.19 |
| R49 | PYR\_B + PYR\_B -> VALX + CO2 | 2.36 |
| R50 | E4P\_B + PYR\_B -> SHKM | 2.21 |
| R51 | SHKM + PYR\_B -> CHRM | 2.21 |
| R52 | CHRM -> PHEX + CO2 | 1.08 |
| R53 | CHRM -> TYRX + CO2 | 0.67 |
| R54 | CHRM -> ANTHR + PYR | 0.45 |
| R55 | ANTHR + P5P\_B -> CPADR5P | 0.45 |
| R56 | CPADR5P -> INDG + CO2 | 0.45 |
| R57 | INDG -> IND + G3P | 0.45 |
| R58 | IND + 3PG\_B -> TRPX | 0.45 |
| R59 | PYR\_B + OAA\_B -> ILEX + CO2 | 1.68 |
| R60 | PYR\_B + PYR\_B -> ISV + CO2 | 3.66 |
| R61 | ISV + ACCOA\_B -> LEUX + CO2 | 3.66 |
| R62 | P5P\_B -> P5P\_BT | 6.08 |
| R64 | PYR\_B -> PYR\_BT | 7.07 |
| R65 | OAA\_B -> OAA\_BT | 11.06 |
| R66 | ACCOA\_B -> ACCOA\_BT | 20.53 |
| R67 | 3PG\_B -> 3PG\_BT | 10.31 |
| R68 | 0.202 ILEX + 0.44 LEUX + 0.13 PHEX + 0.054 TRPX + 0.081 TYRX + 0.284 VALX -> BIOMASS | 8.32 |