

**Table 2. Fitting of Metabolites of *B. methanolicus*<sup>a</sup>**

| metabolite                 | fit type | time constant $T$ |                | no. of incorporated $^{13}\text{C}$ |              |
|----------------------------|----------|-------------------|----------------|-------------------------------------|--------------|
|                            |          | a                 | b              | a                                   | b            |
| tetraglutamyl-formyl-THF   | PT1      | 45.2 ± 7.6        | 40.0 ± 10.9    | 0.88 ± 0.47                         | 0.90 ± 0.08  |
| hexose-1-phosphate         | PT1      | 33.2 ± 1.3        | 39.7 ± 1.5     | 5.36 ± 0.56                         | 5.60 ± 0.17  |
| hexose-6-phosphate         | PT1      | 31.6 ± 1.7        | 32.3 ± 2.4     | 5.40 ± 0.65                         | 5.20 ± 0.12  |
| fructose-1,6-bisphosphate  | PT1      | 26.6 ± 3.9        | 27.6 ± 1.0     | 5.69 ± 1.14                         | 5.50 ± 0.07  |
| glyceraldehyde-3-phosphate | PT1      | n.d.              | 34.1 ± 2.1     | n.d.                                | 3.03 ± 0.06  |
| dihydroxyacetonephosphate  | PT1      | 33.8 ± 1.2        | 35.4 ± 3.5     | 2.81 ± 0.10                         | 3.01 ± 0.10  |
| sedoheptulose-7-phosphate  | PT1      | 26.4 ± 1.1        | 26.2 ± 1.0     | 6.35 ± 0.56                         | 6.35 ± 0.08  |
| ribose-5-phosphate         | PT1      | 27.4 ± 10.3       | 29.3 ± 1.33    | 3.31 ± 0.61                         | 4.22 ± 0.06  |
| ribulose-5-phosphate       | PT1      | 23.4 ± 1.0        | 23.2 ± 1.7     | 2.88 ± 0.29                         | 4.50 ± 0.10  |
| 6-phosphogluconate         | PT1      | 21.9 ± 4.4        | 20.0 ± 2.3     | 5.40 ± 0.50                         | 5.52 ± 0.19  |
| acetyl-CoA                 | PT1      | 56.4 ± 3.8        | 54.1 ± 6.6     | 2.09 ± 1.15                         | 2.02 ± 0.10  |
| phosphoenolpyruvate        | PT1      | 42.9 ± 12.3       | 41.8 ± 4.6     | 2.88 ± 0.29                         | 3.01 ± 0.11  |
| 2/3-phosphoglycerate       | PT1      | 35.6 ± 2.3        | 43.6 ± 5.9     | 2.74 ± 0.17                         | 3.02 ± 0.14  |
| citrate                    | logistic | 86.0 ± 21.3       | 64.3 ± 19.5    | 3.11 ± 0.63                         | 4.26 ± 0.02  |
| bacillithiol oxidized      | logistic | 312.8 ± 42.6      | 148.4 ± 21.3   | 2.86 ± 1.15                         | 10.26 ± 9.88 |
| UDP-glucose                | logistic | 119.6 ± 34.8      | 240.8 ± 18.4   | 6.07 ± 4.42                         | 8.24 ± 0.41  |
| AMP                        | logistic | 257.1 ± 81.8      | 89.9 ± 150.5   | 1.28 ± 0.72                         | 1.71 ± 0.11  |
| ADP                        | logistic | No fit            | 70.74 ± 133.85 | 1.52 <sup>b</sup>                   | 8.02 ± 8.03  |
| ATP                        | logistic | 129.4 ± 7.1       | 645.0 ± 379.0  | 1.21 ± 0.02                         | 2.10 ± 0.12  |
| GMP                        | logistic | No fit            | 226.4 ± 104.2  | 2.11 <sup>b</sup>                   | 1.97 ± 0.47  |
| GDP                        | logistic | No fit            | No fit         | 1.58 <sup>b</sup>                   | No fit       |
| UMP                        | logistic | 273.0 ± 69.1      | 148.1 ± 35.6   | 3.05 ± 1.17                         | 3.16 ± 0.05  |
| UDP                        | logistic | No fit            | 117.3 ± 74.9   | 1.76 <sup>b</sup>                   | 2.16 ± 0.06  |
| UTP                        | logistic | 159.9 ± 41.8      | 92.4 ± 128.9   | 4.37 ± 0.03                         | 2.06 ± 0.05  |

<sup>a</sup>First order kinetic parameters of  $^{13}\text{C}$  incorporation curves from methanol using DynaMet (a) and by targeted approach for peak extraction followed by parameter estimation using Prism (b). n.d., not detected; PT1, first order kinetics. <sup>b</sup>Maximum value obtained from automatic sample analysis.