

1    **Supplementary Figures**

2    **Figure S1.** Pan-genome size and average of new genes based on sequential addition of sequenced  
3    genomes of *B. animalis* (panel a), *B. bifidum* (panel b), *B. breve* (panel c) and *B. longum* (panel d).

4

5    **Figure S2.** Pan-genome size and average of new genes based on sequential addition of sequenced  
6    genomes of *B. adolescentis* (panel a), *B. asteroides* (panel b), *B. dentium* (panel c), *B. pseudocatenulatum*  
7    (panel d), *B. pseudolongum* (panel e) and *B. thermophilum* (panel f).

8

9    **Figure S3.** Clusters based on ANI values between *B. adolescentis* (panel a), *B. animalis* (panel b), *B.*  
10    *asteroides* (panel d) and *B. dentium* (panel c) strains.

11

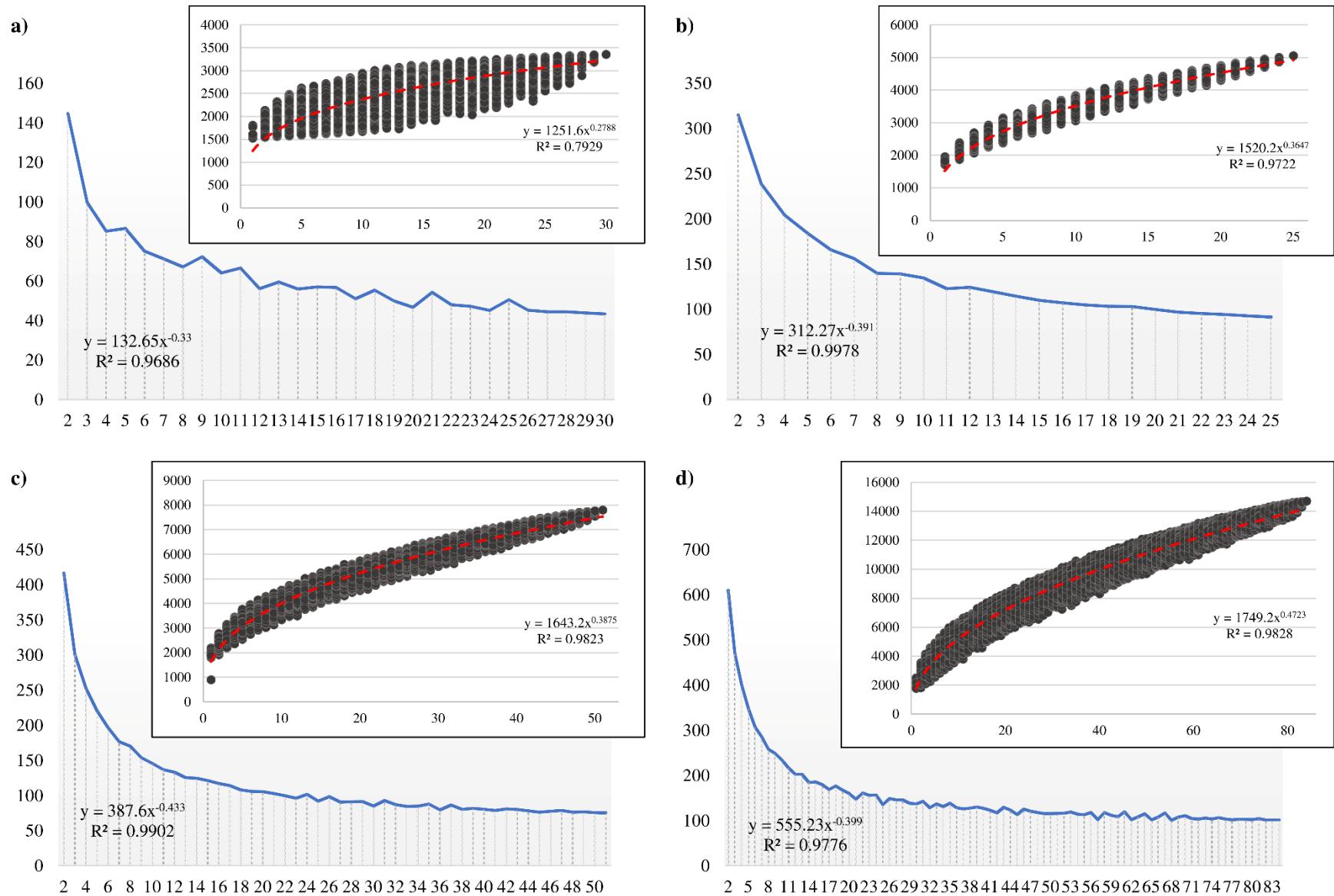
12    **Figure S4.** Clusters based on ANI values between *B. bifidum* (panel a) and *B. breve* (panel b) strains.

13

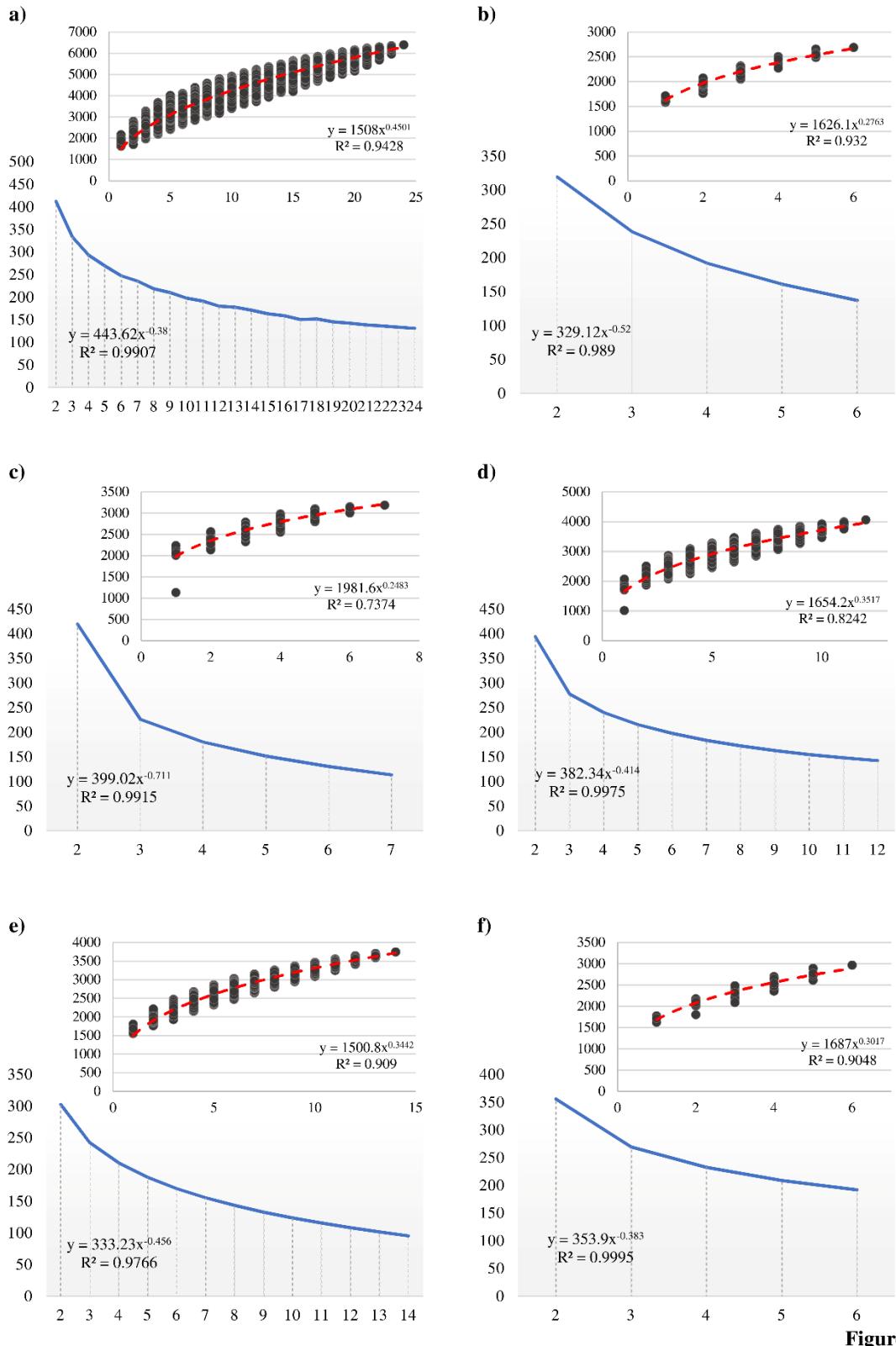
14    **Figure S5.** Clusters based on ANI values between *B. longum* strains.

15

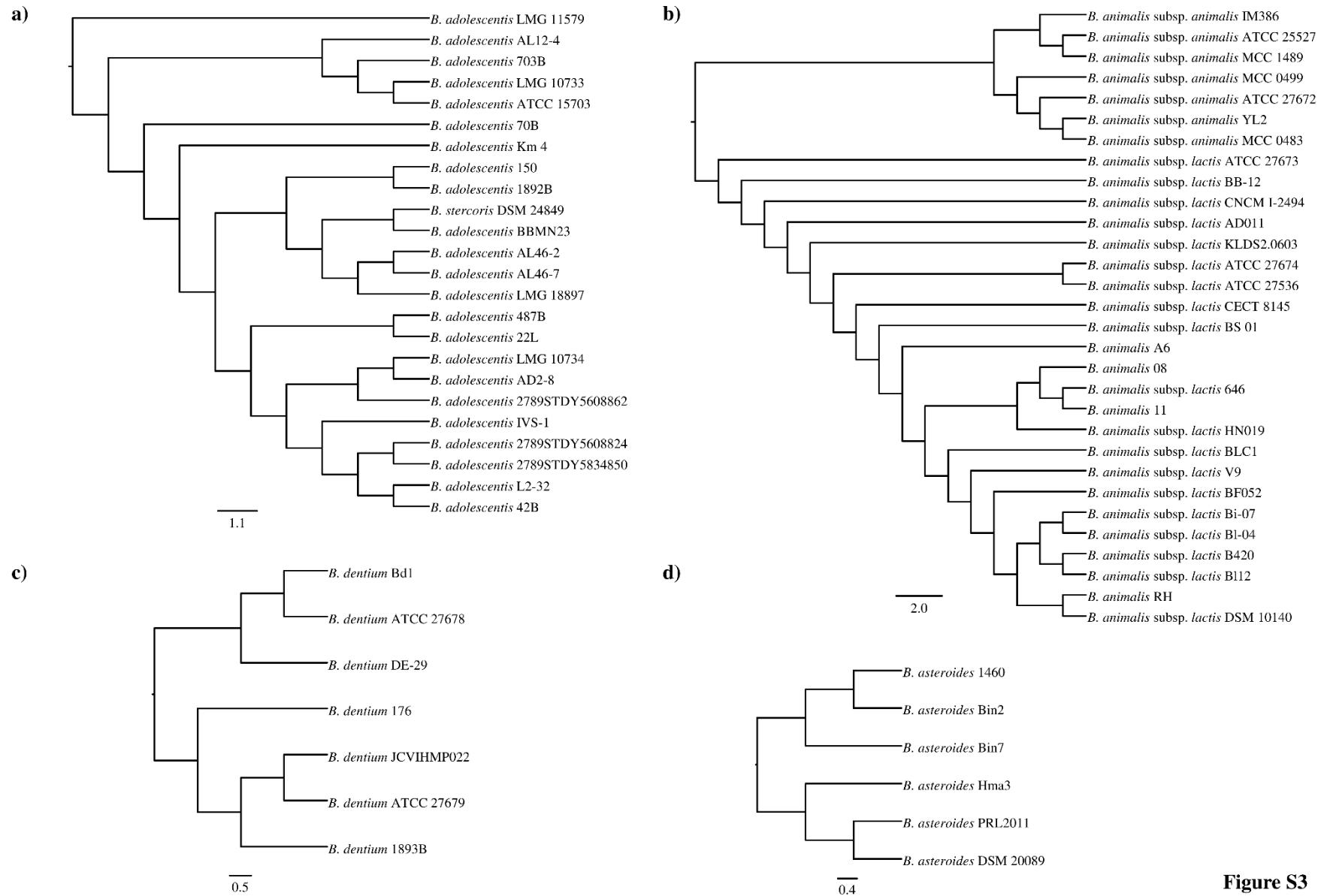
16    **Figure S6.** Clusters based on ANI values between *B. pseudocatenulatum* (panel c), *B. pseudolongum*  
17    (panel a) and *B. thermophilum* (panel b) strains.



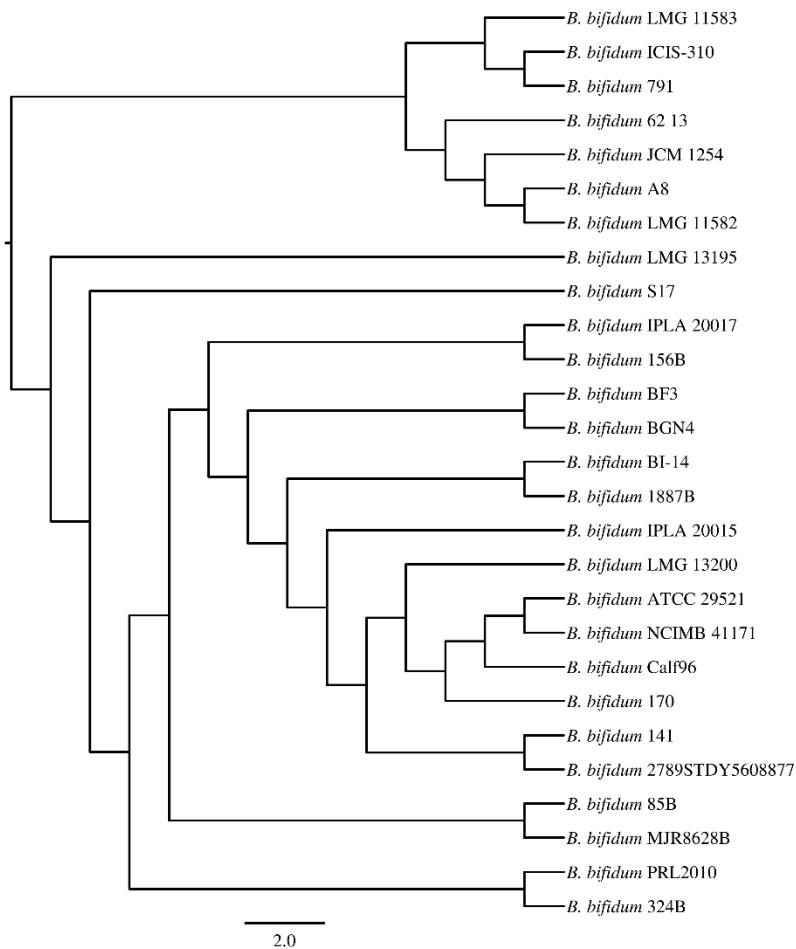
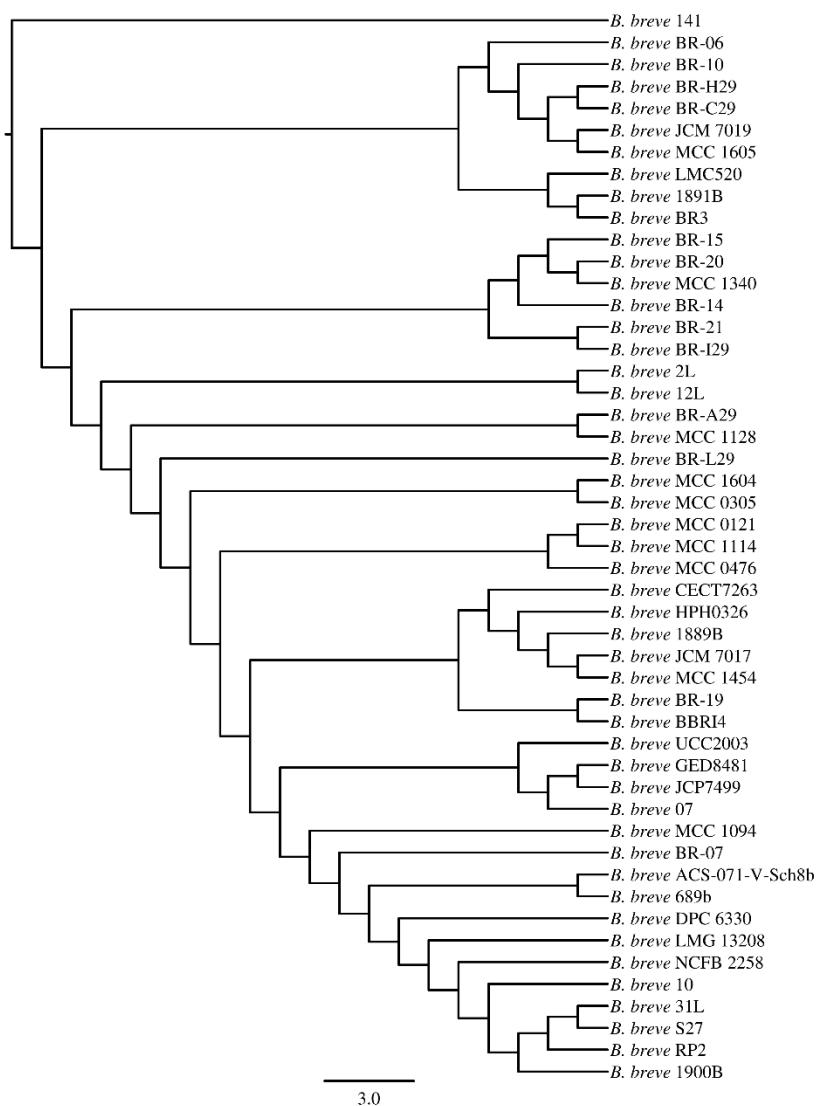
**Figure S1**

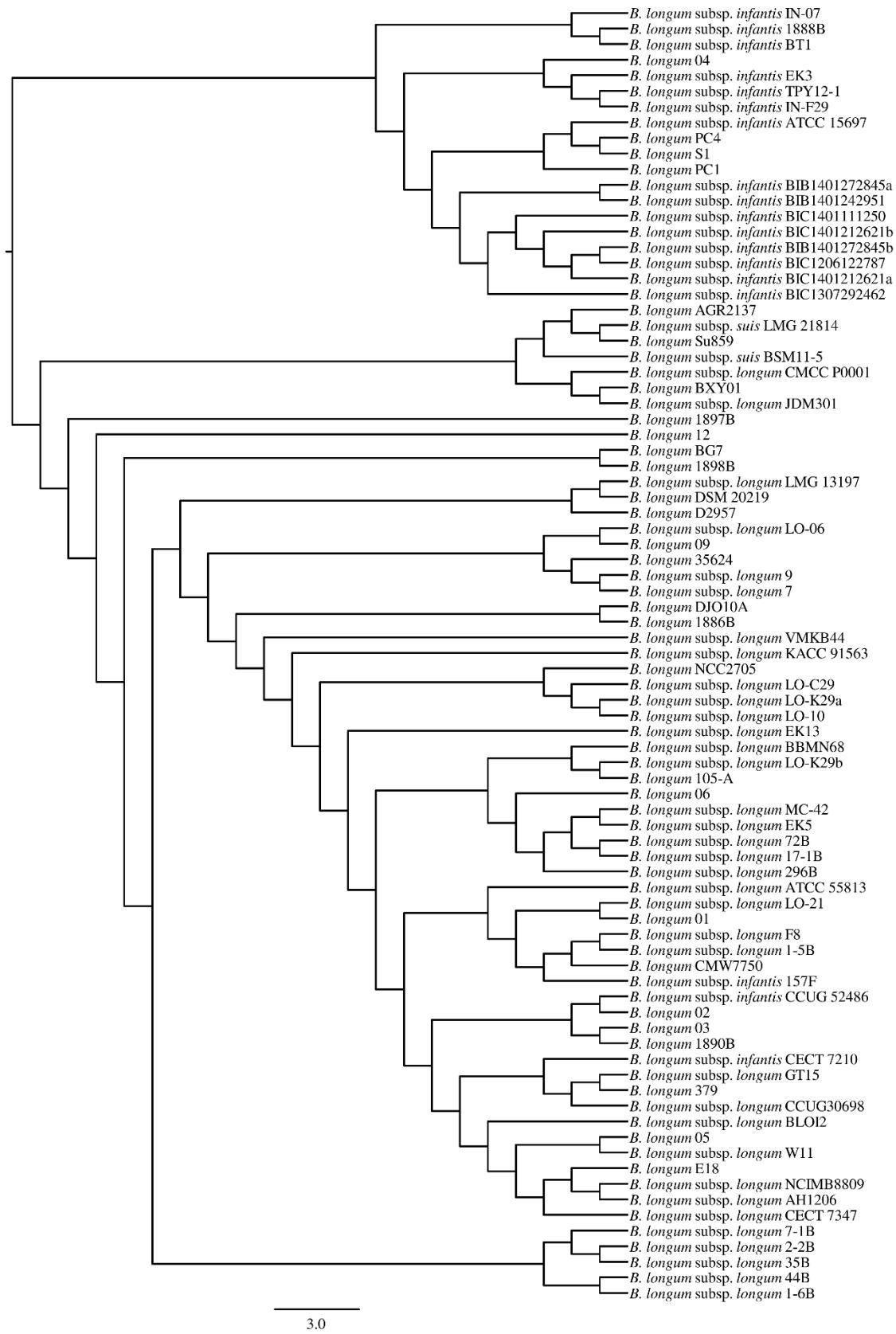


**Figure S2**

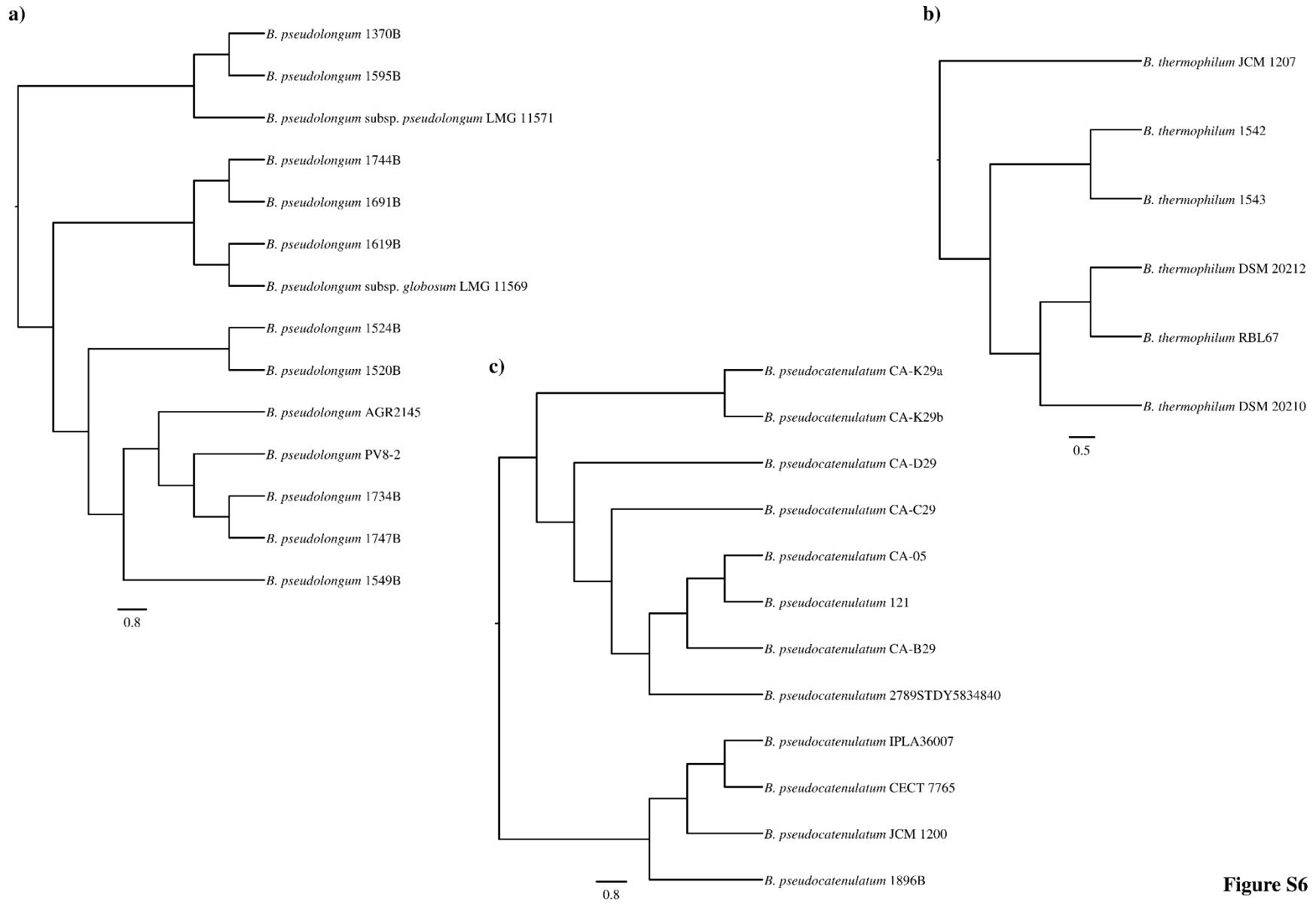


**Figure S3**

**a)****b)****Figure S4**



**Figure S5**



**Figure S6**