

# BV-BRC Test Report

## A10. Service – Phylogenetic Tree - Bacteria

<b>Item to test</b>	Phylogenetic Tree Service using bacterial genomes
<b>URL</b>	<a href="https://www.bv-brc.org/app/PhylogeneticTree">https://www.bv-brc.org/app/PhylogeneticTree</a>
<b>Prerequisites</b>	Bacterial genome groups in the workspace
<b>References</b>	<a href="https://www.bv-brc.org/docs/quick_references/services/phylogenetic_tree_building_service.html">https://www.bv-brc.org/docs/quick_references/services/phylogenetic_tree_building_service.html</a> <a href="https://www.bv-brc.org/docs/tutorial/phylogenetic_tree/phylogenetic_tree.html">https://www.bv-brc.org/docs/tutorial/phylogenetic_tree/phylogenetic_tree.html</a>
<b>Tester(s)</b>	Rebecca Wattam, Maulik Shukla
<b>Test date</b>	08-May-2022 (follow-up from original test)
<b>Test result</b>	<b>Passed</b>

### Overview

- Test the Phylogenetic Tree Service using exemplar bacterial genome groups.
- Test input options, i.e. selecting genomes one by one or using genome group.
- Test the tree parameters, i.e. building trees with 10, 50, or 100 conserved genes.
- For each job submitted, verify successful completion of the job, presence of output files, and quality of the phylogenetic tree.
- Review the interactive tree viewer and verify all functions are working as expected.

### Test Data

<b>Dataset</b>	<b>Rational</b>	<b>Input Format</b>	<b>Input</b>
Brucella representative genomes	Workshop example	Select genomes or genome group	Brucella Representative Genomes

- All test datasets and corresponding job results are available in the following public workspace:  
<https://www.bv-brc.org/workspace/BVBRC@patricbrc.org/BVBRC%20Tests/Phylogenetic%20Tree>

### Test Results


- All phylogenetic tree jobs completed successfully, without any errors.
- All jobs resulted in expected output files in corresponding job output directory, providing tree in pdf, png, svg and nwk formats.
- The HTML phylogenetic tree report was informative and provided the tree as well as statistics of the data used for building the tree, exact command line parameters, and the list of genomes and protein families used.
- The interactive phylogenetic tree viewer worked as expected.

- All test datasets and corresponding job results are available in the following public workspace: <https://www.bv-brc.org/workspace/BVBRC@patricbrc.org/BVBRC%20Tests/Genome%20Assembly/Bacteria>
- Below are a series of screenshots showing successful completion of the jobs, availability of the result files in the workspace, excerpts of the assembly report and summary of assembled contigs and total length for each of the jobs.

Services

## Phylogenetic Tree Building

The Phylogenetic Tree Building Service enables construction of custom phylogenetic trees for user-selected genomes. For further explanation, please see the Phylogenetic Tree Building Service [Quick Reference Guide](#) and [Tutorial](#).



**Input Genomes** 


Add at least 4 (up to 100 ) genomes.

SELECT GENOME

AND/OR SELECT GENOME GROUP

SELECTED INPUT GENOME TABLE

Brucella Representative Genomes (15 genomes)  

**Parameters** 

OUTPUT FOLDER








OUTPUT NAME

NUMBER OF GENES:

MAX ALLOWED DELETIONS (0-10):

MAX ALLOWED DUPLICATIONS (0-10):

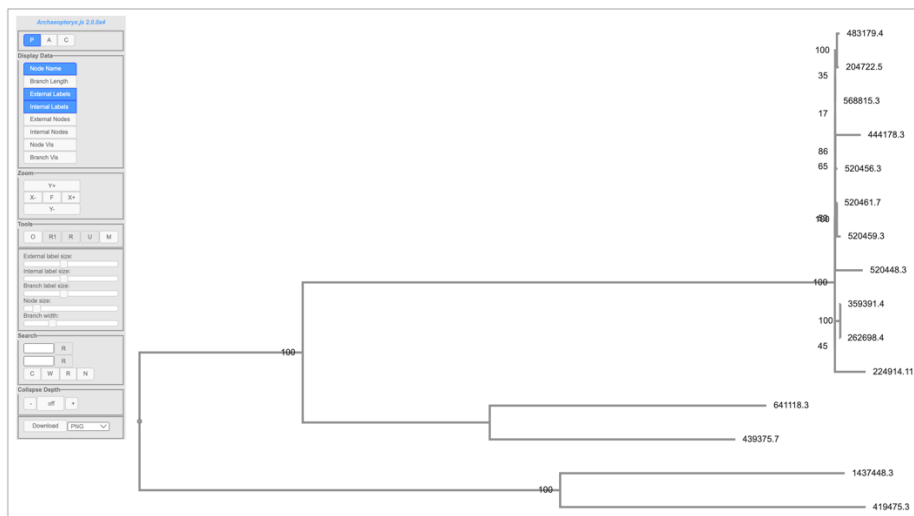
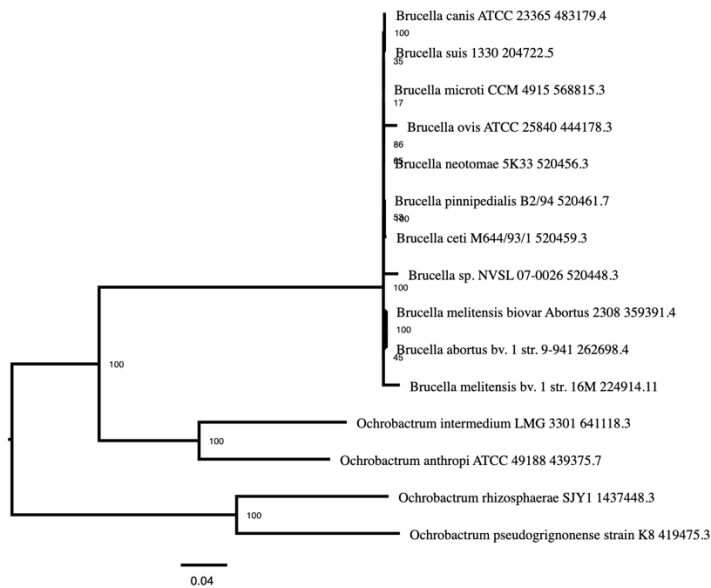
Your job has been submitted successfully. Please visit your [Jobs List](#) to check the status of your job and access the results.

BVBRC / BVBRC Tests / Phylogenetic Tree (5 items)					  
Name	Size	Owner	Members	Created	
↑ Parent folder			-		
 Brucella Representative Genomes	15 genomes	me	Public	5/7/22, 6:38 PM	
 Brucella Representative Genome Tree	8.2 kB	me	Public	5/7/22, 6:52 PM	
 Brucella Representative Genomes - 10 genes	8.5 kB	me	Public	5/8/22, 6:39 AM	
 Brucella Representative Genomes - 50 genes	8.5 kB	me	Public	5/8/22, 6:39 AM	

Status	ID	Service	Output Name	Submit	Start	Completed
completed	7747470	CodonTree	Brucella Representative Genomes - 50 genes	5/8/22, 6:33 AM	5/8/22, 6:33 AM	5/8/22, 6:39 AM
completed	7747469	CodonTree	Brucella Representative Genomes - 10 genes	5/8/22, 6:32 AM	5/8/22, 6:32 AM	5/8/22, 6:39 AM
completed	7747172	CodonTree	Brucella Representative Genome Tree	5/7/22, 6:39 PM	5/7/22, 6:39 PM	5/7/22, 6:52 PM

Name	Size	Owner	Members	Created
Parent folder				
Brucella Representative Genomes - 10 genes.pdf	2.5 kB	me	Public	5/8/22, 6:39 AM
Brucella Representative Genomes - 10 genes.png	33.9 kB	me	Public	5/8/22, 6:39 AM
Brucella Representative Genomes - 10 genes.svg	11.9 kB	me	Public	5/8/22, 6:39 AM
Brucella Representative Genomes - 10 genes_proteins.phy	72.5 kB	me	Public	5/8/22, 6:39 AM
Brucella Representative Genomes - 10 genes_report.html	23.1 kB	me	Public	5/8/22, 6:39 AM
Brucella Representative Genomes - 10 genes_treeWithGenomelds.nwk	815 B	me	Public	5/8/22, 6:39 AM
detail_files		me	Public	5/8/22, 6:39 AM

svg file: Brucella Representative Genomes - 10 genes.svg



## References

- [Phylogenetic Tree Service Quick Reference Guide](#)
- [Phylogenetic Tree Service Tutorial](#)