

BV-BRC Test Report

A17. Service – Proteome Comparison - Bacteria

Item to test	Proteome Comparison Service using bacterial genomes
URL	https://www.bv-brc.org/app/SeqComparison
Prerequisites	Bacterial genome group
References	https://www.bv-brc.org/docs/quick_references/services/proteome_comparison_service.html https://www.bv-brc.org/docs/tutorial/proteome_comparison/proteome_comparison.html
Tester(s)	Rebecca Wattam, Maulik Shukla
Test date	08-May-2022 (follow-up from original test)
Test result	Passed

Overview

- Test the Proteome Comparison Service using exemplar bacterial genomes.
- Test input options, i.e., selecting genomes one by one, using genome group, and protein fasta file.
- For each job submitted, verify successful completion of the job, presence of output files, and quality of results.
- Review interactive proteome comparison viewer and its functions as expected.

Test Data

Dataset	Rational	Input Format	Input
Brucella representative genomes	Workshop example	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/Proteome%20Comparison>

Test Results

- All jobs completed successfully, without any errors.
- All jobs resulted in expected output files in corresponding job output directory.
- The interactive circular proteome comparison 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/Proteome%20Comparison>
- Below are a series of screenshots showing successful completion of the jobs, availability of the result files in the workspace, and the viewer.

Parameters ?

ADVANCED PARAMETERS (OPTIONAL) ▾

OUTPUT FOLDER
📁 Proteome Comparison

OUTPUT NAME
Output Name

Comparison Genomes ?

Add up to 9 genomes to compare (use plus buttons to add).

SELECT GENOME
📄 Brucella suis 1330 +

AND/OR SELECT PROTEIN FASTA FILE
📄 204722.5.PATRIC.faa +

AND/OR SELECT FEATURE GROUP
📄 Optional +

AND/OR SELECT GENOME GROUP
📄 Brucella Representative Genomes +

SELECTED GENOME TABLE

Brucella Representative Genomes	x

Proteome Comparison should be finished shortly.
Check workspace for results.

Reset Submit

Parameters ?

ADVANCED PARAMETERS (OPTIONAL) ▾

OUTPUT FOLDER
📁 Proteome Comparison

OUTPUT NAME
Output Name

Comparison Genomes ?

Add up to 9 genomes to compare (use plus buttons to add).

SELECT GENOME
📄 Brucella suis 1330 +

AND/OR SELECT PROTEIN FASTA FILE
📄 204722.5.PATRIC.faa +

AND/OR SELECT FEATURE GROUP
📄 Optional +

AND/OR SELECT GENOME GROUP
📄 Brucella Representative Genomes +

SELECTED GENOME TABLE

Brucella Representative Genomes	x
204722.5.PATRIC.faa	x
Brucella suis 1330	x

Proteome Comparison should be finished shortly.
Check workspace for results.

Reset Submit

Status	ID	Service	Output Name	Submit	Start	Completed
completed	7747557	Proteome Comparison	Brucella representative genomes - mixed input	5/8/22, 9:29 AM	5/8/22, 9:29 AM	5/8/22, 9:41 AM
completed	7747178	Proteome Comparison	Brucella Representative Genomes Comparison	5/7/22, 6:46 PM	5/7/22, 6:46 PM	5/7/22, 7:01 PM

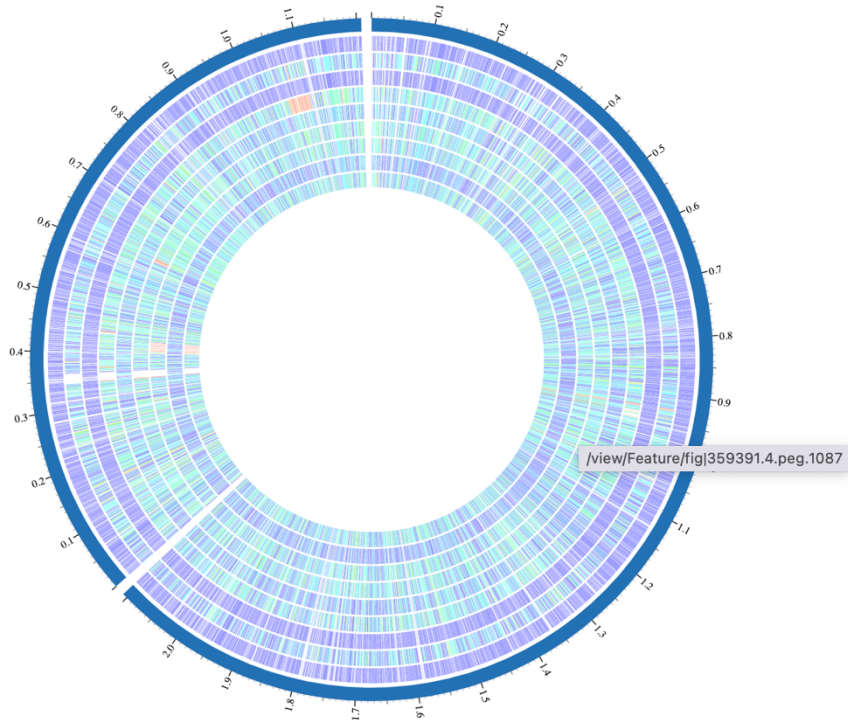
BVBR / BVBR Tests / Proteome Comparison (4 items)
📄
+
👁

Name	Size	Owner	Members	Created
↑ Parent folder			-	
📄 204722.5.PATRIC.faa	1.4 MB	me	Public	5/8/22, 9:27 AM
📄 Brucella Representative Genomes	7 genomes	me	Public	5/8/22, 9:28 AM
📄 Brucella Representative Genomes Comparison	7.0 kB	me	Public	5/7/22, 7:01 PM
📄 Brucella representative genomes - mixed input	7.3 kB	me	Public	5/8/22, 9:41 AM

	Percent protein sequence identity															
Bidirectional best hit	100	99.9	99.8	99.5	99	98	95	90	80	70	60	50	40	30	20	10
Unidirectional best hit	100	99.9	99.8	99.5	99	98	95	90	80	70	60	50	40	30	20	10

List of tracks, from outside to inside:

1. Brucella suis 1330 (204722.5)
2. Brucella pinnipedialis B2/94 (520461.7)
3. Brucella suis 1330 (204722.5)
4. Brucella ovis ATCC 25840 (444178.3)
5. Brucella microti CCM 4915 (568815.3)
6. Brucella melitensis bv. 1 str. 16M (224914.11)
7. Brucella melitensis biovar Abortus 2308 (359391.4)
8. Brucella canis ATCC 23365 (483179.4)
9. Brucella abortus bv. 1 str. 9-941 (262698.4)



References

- [Proteome Comparison Service Quick Reference Guide](#)
- [Proteome Comparison Service Tutorial](#)