## **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 it functions as expected.

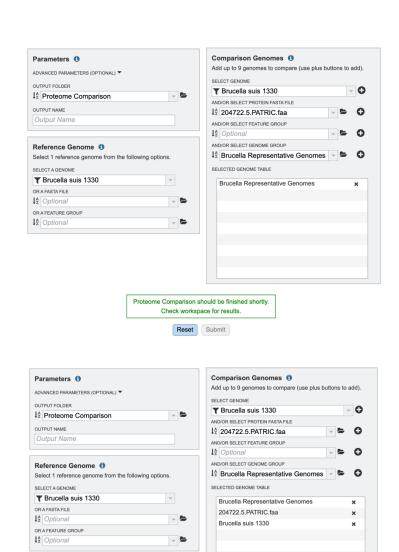
#### **Test Data**

Dataset	Rational	Input Format	Input
Brucella representative	Workshop	Genome group	Brucella Representative Genomes
genomes	example		

 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.



Proteome Comparison should be finished shortly.

Check workspace for results.

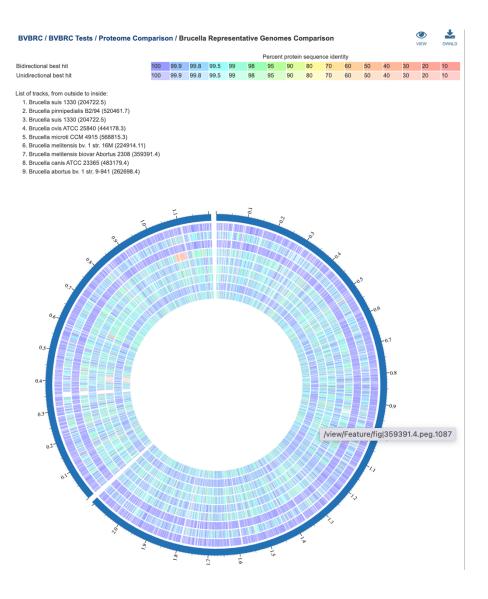






	Name	^	Size	Owner	Members	Created
t	Parent folder				-	
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	circos_final.html		11.4 MB	me	Public	5/7/22, 7:01 PM
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	comp_genome_2.txt		193.3 kB	me	Public	5/7/22, 7:01 PM
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	legend.html		2.4 kB	me	Public	5/7/22, 7:01 PM
	ref_genome.txt		169.4 kB	me	Public	5/7/22, 7:01 PM

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IC 00431	1		al204722.5.peg.1	gon	PLF 234 (PGF 0034 hypothetical	619	735 -	bi (<->)	CP002078	1		figl520461.7.peg.1	oomp_g	hypothetica	1	0.974 bi (<->)	NC 00431	1	,
IC 00431			204722 BR0001	dnaA	PLF 234 (PGF 0087 Chromosor	691	2274 +	bi (<->)	CP002078	2		fig 520461 BPI I1	dnaA	Chromosor	0.998	0.998 bi (<->)	NC 00431	2	
C 00431			1204722 BR0002	dnaN	PLF 234 PGF 0647 DNA polym	2566	3696 +	bi (<->)	CP002078	3		figi520461 BPI I2	dnaN	DNA polym	1	0.997 bi (<->)	NC 00431	3	
C 00431			204722 BR0003	recF	PLF 234 PGF 1038 DNA recorr	3878	5032 +	bi (<->)	CP002078	4		figl520461 BPI I3	recF	DNA recorr	- 1	0.997 bi (<->)	NC 00431	4	
C 00431			1204722 BR0003	moeB	PLF 234 PGF 0586 Molybdopte	5070	5852 +	bi (<->)	CP002078	5		figl520461 BPI I4	moeB	Molybdopte	0.992	0.996 bi (<->)	NC 00431	5	
00431			1204722 BR0004	IIIOED	PLF 234 PGF 0001 D-3-phospi	5869	6825 -	bi (<->)	CP002078	6		figi520461 BPI I5	IIIOED	D-3-phospi	0.992	0.997 bi (<->)	NC 00431	6	
C 00431			1204722 BR0006		PLF 234 PGF 0635 ABC transc	6822	8447 -	bi (<->)	CP002078	7		fig 520461 BPI  16		ABC transp	0.998	0.998 bi (<->)	NC 00431	7	
00431			1204722 BR0007		PLF 234 PGF 1056 ABC transp	8471	9610 -	bi (<->)	CP002078	8		fig1520461 BPI_I6		ABC transp	0.997	0.997 bi (<->)	NC 00431	8	
00431			1204722 BR0007		PLF 234 PGF 1056 ABC transc	9610	10707 -		CP002078	9		figi520461 BPI_I/			0.997	0.997 bi (<->)	NC_00431	9	
								bi (<->)			365			ABC transp					
			204722 BR0009		PLF_234_ PGF_0910 ABC transg	10819	12666 -	bi (<->)	CP002078	10		fig 520461 BPI_I9		ABC transp	0.998	0.998 bi (<->)	NC_00431	10	
			204722 BR0010		PLF_234_ PGF_0910 ABC transp	12680	14548 -	bi (<->)	CP002078	11		fig 520461 BPI_I10		ABC transp	0.998	0.998 bi (<->)	NC_00431	11	
	12		204722,5.peg.12		PLF_234_ PGF_0012 hypothetic	14462	14608 +	bi (<->)	CP002078	12	48	fig 520461,7.peg.12		hypothetica	- 1	0.979 bi (<->)	NC_00431	12	
			204722 BR0011		PLF_234_ PGF_0103 hypothetical	14779	15102 -									bi (<->)	NC_00431	13	
	14		1204722 BR0012		PLF_234_ PGF_0042 FIG004509	15148	15348 -	bi (<->)	CP002078	13	66	fig 520461 BPI_I12		FIG004509	0.985	0.985 bi (<->)	NC_00431	14	
			1204722 BR0013		PLF_234_ PGF_0103 hypothetic	15388	15738 -									bi (<->)	NC_00431	15	
			204722 BR0014		PLF_234_ PGF_0041 ABC transp	16003	17109 -	bi (<->)	CP002078	14		fig 520461 BPI_I14		ABC transp	0.995	0.997 bi (<->)	NC_00431	16	
			204722 BR0016		PLF_234_ PGF_0094 Methylgluta	17578	18372 -	bi (<->)	CP002078	15	264	fig 520461 BPI_I16		Methylgluta	1	0.996 bi (<->)	NC_00431	17	
	18		204722.5.peg.18		PLF_234_ PGF_0298 Hydroxyme	18369	18554 -									bi (<->)	NC_00431	18	
_00431	19	250 fi	204722.5.peg.19		PLF_234_ PGF_0298 Hydroxyme	18479	19231 -	bi (<->)	CP002078	16		fig 520461 BPI_I17	mvaB	Hydroxyme	1	0.774 bi (<->)	NC_00431	19	
			204722 BR0018		PLF_234_ PGF_0405 Methylcroto	19224	21245 -	bi (<->)	CP002078	17		fig 520461 BPI_I18		Methylcrotc	0.999	0.999 bi (<->)	NC_00431	20	
			1204722 BR0019		PLF_234_ PGF_0536 Methylcroto	21257	22864 -	bi (<->)	CP002078	18		fig 520461 BPI_I19		Methylcroto	0.996	0.998 bi (<->)	NC_00431	21	
_00431	22	382 fi	1204722 BR0020	ivd	PLF_234_ PGF_0003 Isovaleryl-0	22864	24012 -	bi (<->)	CP002078	19	382	fig 520461 BPI_I20	ivd	Isovaleryl-C	1	0.997 bi (<->)	NC_00431	22	
00431	23	48 fi	[204722.5.peg.23		PLF 234 PGF 0765 hypothetical	24025	24171 +	bi (<->)	CP002078	20	48	fig 520461.7.peg.20		hypothetica	1	0.979 bi (<->)	NC 00431	23	
00431	24	662 fi	1204722 BR0021		PLF 234 (PGF 0002 Acetoacety	24189	26177 -	bi (<->)	CP002078	21	662	fig 520461 BPI  121		Acetoacety	0.998	0.998 bi (<->)	NC 00431	24	
00431	25	144 fi	1204722 BR0022		PLF 234 (PGF 0012 hypothetical	26362	26796 -	bi (<->)	CP002078	22	144	fig 520461 BPI  122		hypothetica	1	0.993 bi (<->)	NC 00431	25	
00431	26	373 f	1204722 BR0023		PLF 234 PGF 0003 Acyltransfe	26973	28094 -	bi (<->)	CP002078	23		fig 520461 BPI  123		Acyltransfe	- 1	0.997 bi (<->)	NC 00431	26	
00431	27	127 f	204722 BR0024		PLF 234 PGF 0042 FIG004184	28617	29000 -	bi (<->)	CP002078	24	127	fig 520461 BPI  125		FIG004184	- 1	0.992 bi (<->)	NC 00431	27	
			1204722 BR0025	aroA	PLF 234 (PGF 0784 3-phospho	29385	30737 +	bi (<->)	CP002078	25		figl520461 BPI 126	aroA	3-phospho	0.998	0.998 bi (<->)	NC 00431	28	
			204722 BR0026	cmk	PLF 234 PGF 0245 Cytidylate I	30734	31393 +	bi (<->)	CP002078	26		fig 520461 BPI I27	cmk	Cytidylate I	0.995	0.995 bi (<->)	NC 00431	29	
	30		1204722.5.peg.30		PLF_234_PGF_0746 hypothetic	31426	31575 -	bi (<->)	CP002078	27		figl520461.7.peg.27		hypothetica	1	0.98 bi (<->)	NC_00431	30	
			1204722 BR0027	msA	PLF 234 PGF 0993 SSU ribosc	31609	33309 +	bi (<->)	CP002078	28		fig 520461 BPI   I28	msA	SSU ribosc	- 1	0.998 bi (<->)	NC 00431	31	
			1204722 BR0028	i por t	PLF 234 PGF 0810 Putative m	33727	34737 -	bi (<->)	CP002078	29		figi520461 BPI I29	iport.	Putative m	0.997	0.997 bi (<->)	NC 00431	32	
			1204722 BR0029		PLF 234 (PGF 0717 Transcriptic	34853	35752 +	bi (<->)	CP002078	30		fig 520461 BPI   I30		Transcriptic	0.001	0.997 bi (<->)	NC 00431	33	
			204722 BR0030		PLF 234 PGF 0103 hypothetic	35746	36321 -	DI (~~)	GF 002070	30	200	INJUZUTUI DE I_IOU		Папосприк	- '	bi (<->)	NC 00431	34	
			1204722 BR0031		PLF 234 PGF 0311 Membrane	36357	37640 -	bi (<->)	CP002078	31	407	figl520461 BPI 132		Membrane	- 4	0.998 bi (<->)	NC 00431	35	
			204722 BR0031	recR	PLF 234 PGF 0311 Membrane PLF 234 PGF 0246 Recombina	37656	38261 -	bi (<->)	CP002078	32		fig 520461 BPI  132	recR	Recombina	- 1	0.995 bi (<->)	NC 00431	36	
				reck									reck		- 1				
			204722 BR0033	dW	PLF_234_PGF_0214 Nucleoid-a	38392	38715 -	bi (<->)	CP002078	33		fig 520461 BPI_I34	d==W	Nucleoid-a:	0.000	0.991 bi (<->)	NC_00431	37	
			204722 BR0034	dnaX	PLF_234_ PGF_1036 DNA polym	38740	40548 -	bi (<->)	CP002078	34		fig 520461 BPI_I35	dnaX	DNA polym	0.998	0.998 bi (<->)	NC_00431	38	
			204722 BR0035		PLF_234_ PGF_0001 HIT1 PRO1	40829	41233 +	bi (<->)	CP002078	35		fig 520461 BPI_I36		HIT1 PRO1	0.993	0.993 bi (<->)	NC_00431	39	
			1204722 BR0036		PLF_234_ PGF_0002 NADH pyro	41262	42209 +	bi (<->)	CP002078	36		fig 520461 BPI_I37		NADH pyro	0.997	0.997 bi (<->)	NC_00431	40	
			204722 BR0037	pheA	PLF_234_ PGF_0754 Prephenat	42210	43082 -	bi (<->)	CP002078	37		fig 520461 BPI_I38	pheA	Prephenat	1	0.997 bi (<->)	NC_00431	41	
			204722 BR0038	kdsB	PLF_234_ PGF_0041 3-deoxy-mi	43162	43917 -	bi (<->)	CP002078	38		fig 520461 BPI_I39	kdsB	3-deoxy-ma	0.996	0.996 bi (<->)	NC_00431	42	
			1204722 BR0039		PLF_234_ PGF_0040 membrane	44325	44903 +	bi (<->)	CP002078	40		fig 520461 BPI_I40		membrane	1	0.995 bi (<->)	NC_00431	43	
			204722 BR0040		PLF_234_ PGF_0002 Molybdopts	44948	45913 -	bi (<->)	CP002078	41		fig 520461 BPI_I41		Molybdopte	0.997	0.997 bi (<->)	NC_00431	44	
	45		204722.5.peg.45		PLF_234_ PGF_0103 hypothetical	46192	46305 -	bi (<->)	CP002078	42		fig 520461.7.peg.42		hypothetica	1	0.973 bi (<->)	NC_00431	45	
		337 1	1204722 BR0042	cyoA	PLF_234_ PGF_0512 Cytochrom	46452	47465 +	bi (<->)	CP002078	43	305	fig 520461 BPI_I43	cyoA	Cytochrom	0.997	0.97 bi (<->)	NC_00431	46	
			204722 BR0043	qoxB	PLF_234_ PGF_0830 Cytochrom	47545	49524 +	bi (<->)	CP002078	44		fig 520461 BPI_I44	cyoB	Cytochrom	0.997	0.998 bi (<->)	NC_00431	47	
_00431	48	209 6	1204722 BR0044		PLF_234_ PGF_0042 Cytochrom	49528	50157 +	bi (<->)	CP002078	45	209	fig 520461 BPI_I45	cyoC	Cytochrom	1	0.995 bi (<->)	NC_00431	48	
_00431	49	121 fs	1204722 BR0045	qoxD	PLF_234_ PGF_0401 Cytochrom	50157	50522 +	bi (<->)	CP002078	46	121	fig 520461 BPI_I46	cyoD	Cytochrom	0.992	0.992 bi (<->)	NC_00431	49	
00431	50	195	1204722 BR0047		PLF_234_ PGF_0822 hypothetical	50973	51560 +	bi (<->)	CP002078	47	232	fig 520461 BPI_I48		hypothetica	0.99	0.836 bi (<->)	NC_00431	50	
00431	51	639 fi	204722 BR0048		PLF 234 PGF 0751 Outer mem	52156	54075 +	bi (<->)	CP002078	48	329	fig 520461.7.peg.48		Outer mem	0.997	0.997 bi (<->)	NC 00431	51	
			1204722 BR0049		PLF_234_ PGF_0707 Inner mem	54072	58811 +	bi (<->)	CP002078	50		figl520461 BPI 150		Inner mem	0.999	0.999 bi (<->)	NC 00431	52	
			1204722 BR0050		PLF 234 PGF 0093 L,D-transpe	58956	59681 +	bi (<->)	CP002078	51		fig 520461 BPI I51		L,D-transpe	1	0.996 bi (<->)	NC 00431	53	
	54		1204722 BR0051		PLF 234 PGF 0803 hypothetical	59732	59947 -	bi (<->)	CP002078	52		fig 520461 BPI  152		hypothetica	- 1	0.986 bi (<->)	NC 00431	54	
			1204722 BR0052		PLF 234 (PGF 0042 FIG00451)	60017	60520 -	bi (<->)	CP002078	53		fig 520461 BPI I53		FIG004513	0.994	0.994 bi (<->)	NC 00431	55	
	56		1204722.5.peg.56		PLF 234 PGF 0826 hypothetical	60513	60638 +	bi (<->)	CP002078	54		figl520461.7.peg.54		hypothetica	1	0.976 bi (<->)	NC 00431	56	
	57		204722 BR0053		PLF 234 PGF 0755 hypothetic	60857	61063 -	bi (<->)	CP002078	55		fig 520461 BPI  154		hypothetica	- 1	0.985 bi (<->)	NC 00431	57	



### References

- Proteome Comparison Service Quick Reference Guide
- Proteome Comparison Service Tutorial