

Supplemental file 1.1: BLAST alignment analysis of BVAB-1



Clostridiales genomosp. BVAB1 isolate UAB071 chromosome, complete genome

Sequence ID: CP049781.1 Length: 1649642 Number of Matches: 4

Range	1: 9272	to 1027	8 GenBank	<u>Graphics</u>				▼ Next Ma	atch A
Score 1860 b	oits(1007	7)	Expect 0.0	Identities 1007/1007	7(100%)	Gaps 0/100	7(0%)	Strand Plus/Plu	ıs
Query	1	ŢĢĢĢĢĀ	ATATTGCA	CAATGGGCGA	AAAGCCTGATG	ÇAĢÇĢAÇĢÇ	CGCGTGAGCG	AAGAAGT	60
Sbjct	9272	TGGGGA	 ATATTGCA			CAGCGACGC	GCGTGAGCG	 AAGAAGT	9331
Query	61				AGAAGGGAAGA				120
Sbjct	9332								9391
uery	121				CGCGGTAATAC			CGGATTT	180
bjct	9392							CGGATTT	9451
uery	181				CGGCACTATAA				240
bjct	9452				CGGCACTATAA				9511
uery	241				TAGAGCTGGAG				300
ojct	9512				ragagetggag				9571
iery	301				ATCAGGAAGAA			TTGCTGG	360
bjct	9572				TCAGGAAGAA			ttgctgg	9631
uery	361	ACGATA	ACTGACGC		AAAGCGTGGGA		GATTAGATAC	CCTGGTA	420
bjct	9632	ACGATA	Actgacgc		AAAGCGTGGGA		SATTAGATAC	cctggta	9691
uery	421	GTCCAC	GCTGTAAA	CGATGAACAC	CTAGGTGTTGG	GAGGCTAAG	CCTTTCAGTG	CCGCAGC	480
bjct	9692	GTCCAC	GCTGTAAA	CGATGAACAC	TAGGTGTTGG	GAGGCTAAG	CCTTTCAGTG	ccccacc	9751
uery	481	AAACGC	AATAAGTG		GGAGTACGTT				540
bjct	9752	AAAĊĠĊ	ÄÄTÄÄGTG		GGAGTACGTT				9811
uery	541				AGCATGTGGTT				600

escription	BVAB-2_AY724740.1 Un	cultured bacterium	clone 123-f 23	Percent Identity	E valu	е			Query C	overa	ige
olecule type	dna			to		to	,			to	
uery Length	1009										
ther reports	Distance tree of results	MSA viewer ?							Filte	r	Reset
Descriptions	Graphic Summary	Alignments	Taxonomy								
Sequences p	oroducing significant a	lignments		Download	١ ٧	Selec	ct colu	mns `	Show	10	00 🕶
select all	100 sequences selected			<u>GenBa</u>	n <u>k Gra</u>	<u>aphics</u>	Dista	nce tre	e of resul	<u>ts</u>	MSA Viewe
		Description		Scientific Nam	e Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession
Uncultured b	pacterium clone ncd989g05c1 165	S ribosomal RNA gene,	partial sequence	uncultured bacte	1864	1864	100%	0.0	100.00%	1358	HM334697.
Uncultured b	pacterium clone ncd997d08c1 169	S ribosomal RNA gene.	partial sequence	uncultured bacte	1864	1864	100%	0.0	100.00%	1358	HM332642.1
Uncultured b	pacterium clone 123-f 23 16S ribo	somal RNA gene, partia	<u>I sequence</u>	uncultured bacte	1864	1864	100%	0.0	100.00%	1009	AY724740.1
Uncultured b	pacterium clone rRNA115 16S ribo	osomal RNA gene, parti	al sequence	uncultured bacte	1864	1864	100%	0.0	100.00%	1513	AY958888.1
<u>Oscillospirac</u>	ceae bacterium strain CHIC02 118	36E3-8 16S ribosomal R	NA gene, partial sequence	Oscillospiraceae	1858	1858	100%	0.0	99.90%	1450	OP540273.1
Uncultured b	pacterium clone ncd1058g03c1 16	SS ribosomal RNA gene	partial sequence	uncultured bacte	1858	1858	100%	0.0	99.90%	1358	HM344558.1
Uncultured b	pacterium clone ncd1008g01c1 16	SS ribosomal RNA gene	partial sequence	uncultured bacte	1858	1858	100%	0.0	99.90%	1358	HM341223.1
Uncultured b	pacterium clone ncd988h05c1 169	S ribosomal RNA gene,	partial sequence	uncultured bacte	1858	1858	100%	0.0	99.90%	1358	HM334584.1
Uncultured b	pacterium clone rRNA164 16S ribo	osomal RNA gene, parti	al sequence	uncultured bacte	1858	1858	100%	0.0	99.90%	1514	AY958937.1
<u>Oscillospirac</u>	ceae bacterium strain UPII 610-J	<u>16S ribosomal RNA gen</u>	e_partial sequence	Oscillospiraceae	1855	1855	100%	0.0	99.80%	1455	OP540270.1
Uncultured b	pacterium clone ncd1060a10c1 16	SS ribosomal RNA gene	partial sequence	uncultured bacte	1853	1853	100%	0.0	99.80%	1358	HM344624.1
Uncultured b	pacterium clone ncd1005h09c1 16	SS ribosomal RNA gene	partial sequence	uncultured bacte	1853	1853	100%	0.0	99.80%	1358	HM341026.1
Uncultured b	pacterium clone ncd998a04c1 165	S ribosomal RNA gene,	partial sequence	uncultured bacte	1853	1853	100%	0.0	99.80%	1358	HM332641.1
Uncultured b	pacterium partial 16S rRNA gene.	isolate BF0002B065		uncultured bacte	1853	1853	100%	0.0	99.80%	1490	AM697115.1
Uncultured b	pacterium clone nck198e03c1 165	<u> S ribosomal RNA gene, j</u>	partial sequence	uncultured bacte	1847	1847	100%	0.0	99.70%	1358	KF094825.1
Uncultured b	pacterium clone ncd1057f07c1 16	S ribosomal RNA gene.	<u>partial sequence</u>	uncultured bacte	1847	1847	100%	0.0	99.70%	1358	HM340507.1
✓ Uncultured b	pacterium clone rRNA351 16S ribo	osomal RNA gene, parti	al sequence	uncultured bacte	1847	1847	100%	0.0	99.70%	1510	AY959124.1
Lincultured b	pacterium clone ncd1008a01c1 16	SS ribosomal RNA gene.	partial sequence	uncultured bacte	1845	1845	100%	0.0	99.70%	1357	HM341161.1

Supplemental file 1.3: BLAST alignment analysis of BVAB-2

Oscillospiraceae bacterium strain CHIC02 1186E3-8 16S ribosomal RNA gene, partial sequence

Sequence ID: OP540273.1 Length: 1450 Number of Matches: 1

Range	1: 358	to 1366 GenBank	Graphics		▼ Next N	Match A Previous Match
Score 1858 b	oits(100	Expect 0.0	Identities 1008/1009(99%)	Gaps 0/1009(0%)	Strand Plus/Pl	us
Query	1	TGGGGAATATTGG	GCAATGGGCGAAAGCCTGA	CCCAGCAACGCCGCGTGAGT(GATGAAGG	60
Sbjct	358			CCCAGCAACGCCGCGTGAGT		417
Query	61	CCTTCGGGTTGTA	AAACTCTTTGGACAGGGAC	GAAGAAAGTGACGGTACCTG	ΓΑGAACAA	120
Sbjct	418	CCTTCGGGTTGTA	AAACTCTTTGGACAGGGAC	GAAGAAAGTGACGGTACCTG	ragaacaa	477
Query	121			AATACGTAGGTGGCGAGCGT		180
Sbjct	478			AATACGTAGGTGGCGAGCGT		537
Query	181			GATAAGTGTGATGTTTAAAT(240
Sbjct	538			GATAAGTGTGATGTTTAAAT		597
Query	241			TGAGTGCTGGAGAGGATAGTG		300
Sbjct	598			TGAGTGCTGGAGAGGATAGT		657
Query	301			GGAACACCGGTGGCGAAGGCG		360
Sbjct	658			GGAACACCGGTGGCGAAGGC		717
Query	361			GGGGAGCAAACAGGATTAGA		420
Sbjct	718			GGGGAGCAAACAGGATTAGA		777
Query	421			TAGGAGGTATCGACCCCTTC		480
Sbjct	778			TAGGAGGTATCGACCCCTTC		837
Query	481			ACGGCCGCAAGGTTAAAACTG		540
Sbjct	838			ACGGCCGCAAGGTTAAAACT		897
Query	541	TTGACGGGGACCC	GCACAAGCAGTGGATTATG	TGGTTTAATTCGAAGCAACG	GAAGAAC	600
Sbjct	898	TTGACGGGGACCC	GCACAAGCAGTGGATTATG	TGGTTTAATTCGAAGCAACG	GAAGAAC	957
Query	601			GGAGACTGAATTTTCTCTTC	GAGACAG	660
Sbjct	958			GGAGACTGAATTTTCTCTTC	GGAGACAG	1017
Query	661			GTGTCGTGAGATGTTGGGTT		720

Supplemental file 1.4: BLAST alignment analysis of BVAB-2.

eq	quences producing significant alignments	Downloa	ad Y	S	elect	column	s × S	how 1	00 🗸
2	select all 100 sequences selected	GenE	<u>ank</u>	<u>Graph</u>	nics .	Distance	e tree of	<u>results</u>	MSA View
	Description	Scientific Name	Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession
7	Clostridiales genomosp. BVAB3 16S ribosomal RNA gene, partial sequence	Mageeibacillus indolicus	1866	1866	100%	0.0	100.00%	1382	KC311734.1
	Bacterium BVAB3-Strain 4 16S ribosomal RNA gene_partial sequence	bacterium BVAB3-Strain 4	1866	1866	100%	0.0	100.00%	1480	GQ900634.
/	Mageeibacillus indolicus strain 0009-5 16S ribosomal RNA, partial sequence	Mageeibacillus indolicus	1866	1866	100%	0.0	100.00%	1480	NR_146698
	Uncultured bacterium clone 1123b-58-f 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1866	1866	100%	0.0	100.00%	1503	GQ900629.
	Mageeibacillus indolicus UPII9-5 chromosome, complete genome	Mageeibacillus indolicus	1866	3732	100%	0.0	100.00%	1809746	CP001850.2
1	Uncultured bacterium clone nbw1012c09c1 16S ribosomal RNA gene_partial sequence	uncultured bacterium	1866	1866	100%	0.0	100.00%	1349	GQ043025.
2	Uncultured bacterium clone 123f 17 16S ribosomal RNA gene_partial sequence	uncultured bacterium	1866	1866	100%	0.0	100.00%	1010	AY724741.1
2	Mageeibacillus indolicus strain 0019-D 16S ribosomal RNA gene, partial sequence	Mageeibacillus indolicus	1862	1862	100%	0.0	99.90%	1480	GQ900633.
2	Mageeibacillus indolicus strain 0004-9 16S ribosomal RNA gene, partial sequence	Mageeibacillus indolicus	1862	1862	100%	0.0	99.90%	1480	GQ900631.
2	Uncultured bacterium clone 8.001-2 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1860	1860	100%	0.0	99.90%	1297	JX871279.1
2	Uncultured bacterium clone nbu407b07c1 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1855	1855	100%	0.0	99.80%	1349	GQ038494.
2	Uncultured bacterium clone FX93B4-11 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1820	1820	98%	0.0	99.80%	1323	AY995273.1
2	Uncultured bacterium clone WDoral5F08 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1666	1666	100%	0.0	96.44%	1350	KC259695.
2	Uncultured bacterium clone 112Q-85 16S ribosomal RNA gene_partial sequence	uncultured bacterium	1663	1663	89%	0.0	100.00%	900	GQ900636.
2	Uncultured bacterium clone 2BV-25 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1663	1663	89%	0.0	100.00%	900	EU188978.
2	Uncultured bacterium clone WD9oral2D09 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1661	1661	100%	0.0	96.34%	1350	KC260938.
2	Uncultured bacterium clone WD9oral2A05 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1661	1661	100%	0.0	96.34%	1350	KC260907.
2	Uncultured bacterium clone WD2oralAB03 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1661	1661	100%	0.0	96.34%	1350	KC260805.
2	Uncultured bacterium clone WD9oralEH06 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1661	1661	100%	0.0	96.34%	1350	KC260441.
2	Uncultured bacterium clone WD1oralAH04 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1661	1661	100%	0.0	96.34%	1351	KC260194.
2	Uncultured bacterium clone WDoral5G03 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1661	1661	100%	0.0	96.34%	1351	KC259699.
2	Uncultured bacterium clone WDoral3G06 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1661	1661	100%	0.0	96.34%	1350	KC259558.
2	Uncultured bacterium clone WD9oral2A07 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1655	1655	100%	0.0	96.24%	1350	KC260908.
2	Uncultured bacterium clone WD2oralBG02 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1655	1655	100%	0.0	96.24%	1350	KC260241.
	Uncultured bacterium clone WD1oralAD01 16S ribosomal RNA gene, partial sequence	uncultured bacterium	1655	1655	100%	0.0	96.24%	1350	KC260162.

Supplemental file 1.5: BLAST alignment analysis of BVAB-3

Mageeibacillus indolicus UPII9-5 chromosome, complete genome

Sequence ID: CP001850.2 Length: 1809746 Number of Matches: 2

Range 1:	255893	3 to 256902 Ger	Bank Graphics		▼ Next Mate	A Previous Ma
Score 1866 bits	s(1010)	Expect 0.0	Identities 1010/1010(100%	Gaps 6) 0/1010(09	%) Strand Plus/Plus	
Query 1				CTGACCCAGCAACGCCGC		60
Sbjct 2	55893					255952
Query 6	1			GGAAGAAACAAATGACGG		120
Sbjct 2	55953					256012
Query 1	.21			CGGTAATACGTAGGTGGC		180
bjct 2	56013					256072
uery 1	.81			GGCTGATAAGTCAGATGT		240
bjct 2	56073					256132
Query 2	41			GGTCTTGAGTGCTGGAGA		300
bjct 2	56133			GGTCTTGAGTGCTGGAGA		256192
uery 3	01			TAGGAGGAACACCAGTGG		360
bjct 2	56193					256252
uery 3	61			AGCGTGGGTAGCAAACAG		420
bjct 2	56253					256312
Query 4	21			AGGTGTAGGAGGTATCGA	CCCCTTCTGTGCCG	480
bjct 2	56313		TAAACGATGATTACT	AGGTGTAGGAGGTATCGA	ccccttctgtgccg	256372
Query 4	81			GGAGTACGGCCGCAAGGT		540
bjct 2	56373					256432
Query 5	41			GTATGTGGTTTAATTCGA		600
bjct 2	56433			GTATGTGGTTTAATTCGA		256492
uery 6	01			GATGTAGAGATACATAAT		660
bjct 2	56493					256552
Query 6	661	AGGAGACAGGTGG	TGCATGGTTGTCGTC	AGCTCGTGTCGTGAGATG	TTGGGTTAAGTCCC	720
Suppler	nental fil		ment analysis of BVA			

Supplemental file 1.6: BLAST alignment analysis of BVAB-3