The SEED Viewer

SEED Viewer version 2.0

Welcome to the SEED Viewer - a read-only browser of the curated SEED data.
For more information about The SEED please visit theSEED.org.

Mark region in Genome Browser

Contig NODE_32_length_43518_cov_20.448595 hit #1
Contig NODE_32_length_43518_cov_20.448595 hit #2
Contig NODE_32_length_43518_cov_20.448595 hit #3
Contig NODE_32_length_43518_cov_20.448595 hit #4
Contig NODE_32_length_43518_cov_20.448595 hit #5
Contig NODE_32_length_43518_cov_20.448595 hit #6
Contig NODE_32_length_43518_cov_20.448595 hit #7
Contig NODE_32_length_43518_cov_20.448595 hit #8
Contig NODE_32_length_43518_cov_20.448595 hit #9
Contig NODE_32_length_43518_cov_20.448595 hit #10
Contig NODE_32_length_43518_cov_20.448595 hit #11
Contig NODE_32_length_43518_cov_20.448595 hit #12
Contig NODE_32_length_43518_cov_20.448595 hit #13
Contig NODE_32_length_43518_cov_20.448595 hit #14
Contig NODE_32_length_43518_cov_20.448595 hit #15
Contig NODE_32_length_43518_cov_20.448595 hit #16
Contig NODE_32_length_43518_cov_20.448595 hit #17

Contig NODE_31_length_45171_cov_18.968520 hit #1
Contig NODE_31_length_45171_cov_18.968520 hit #2
Contig NODE_31_length_45171_cov_18.968520 hit #3
Contig NODE_31_length_45171_cov_18.968520 hit #4
Contig NODE_31_length_45171_cov_18.968520 hit #5
Contig NODE_31_length_45171_cov_18.968520 hit #6
Contig NODE_31_length_45171_cov_18.968520 hit #7
Contig NODE_31_length_45171_cov_18.968520 hit #8
Contig NODE_31_length_45171_cov_18.968520 hit #9
Contig NODE_31_length_45171_cov_18.968520 hit #10
Contig NODE_31_length_45171_cov_18.968520 hit #11
Contig NODE_31_length_45171_cov_18.968520 hit #12
Contig NODE_31_length_45171_cov_18.968520 hit #13
Contig NODE_31_length_45171_cov_18.968520 hit #14

Contig NODE_44_length_1057_cov_84.511828 hit #1
Contig NODE_44_length_1057_cov_84.511828 hit #2
Contig NODE_44_length_1057_cov_84.511828 hit #3

Contig NODE_23_length_71673_cov_15.369161 hit #1
Contig NODE_23_length_71673_cov_15.369161 hit #2
Contig NODE_23_length_71673_cov_15.369161 hit #3
Contig NODE_23_length_71673_cov_15.369161 hit #4
Contig NODE_23_length_71673_cov_15.369161 hit #5
Contig NODE_23_length_71673_cov_15.369161 hit #6
Contig NODE_23_length_71673_cov_15.369161 hit #7
Contig NODE_23_length_71673_cov_15.369161 hit #8
Contig NODE_23_length_71673_cov_15.369161 hit #9
Contig NODE_23_length_71673_cov_15.369161 hit #10
Contig NODE_23_length_71673_cov_15.369161 hit #11

Contig NODE_27_length_62334_cov_15.396226 hit #1
Contig NODE_27_length_62334_cov_15.396226 hit #2
Contig NODE_27_length_62334_cov_15.396226 hit #3
Contig NODE_27_length_62334_cov_15.396226 hit #4
Contig NODE_27_length_62334_cov_15.396226 hit #5

Contig NODE_27_length_62334_cov_15.396226 hit #6
Contig NODE_27_length_62334_cov_15.396226 hit #7
Contig NODE_27_length_62334_cov_15.396226 hit #8
Contig NODE_27_length_62334_cov_15.396226 hit #9
Contig NODE_27_length_62334_cov_15.396226 hit #10
Contig NODE_27_length_62334_cov_15.396226 hit #11
Contig NODE_27_length_62334_cov_15.396226 hit #12
Contig NODE_27_length_62334_cov_15.396226 hit #13
Contig NODE_27_length_62334_cov_15.396226 hit #14
Contig NODE_27_length_62334_cov_15.396226 hit #15
Contig NODE_27_length_62334_cov_15.396226 hit #16
Contig NODE_27_length_62334_cov_15.396226 hit #17
Contig NODE_27_length_62334_cov_15.396226 hit #18
Contig NODE_27_length_62334_cov_15.396226 hit #19
Contig NODE_27_length_62334_cov_15.396226 hit #20
Contig NODE_27_length_62334_cov_15.396226 hit #21

Contig NODE_1_length_566821_cov_8.393009 hit #1
Contig NODE_1_length_566821_cov_8.393009 hit #2
Contig NODE_1_length_566821_cov_8.393009 hit #3
Contig NODE_1_length_566821_cov_8.393009 hit #4
Contig NODE_1_length_566821_cov_8.393009 hit #5
Contig NODE_1_length_566821_cov_8.393009 hit #6
Contig NODE_1_length_566821_cov_8.393009 hit #7
Contig NODE_1_length_566821_cov_8.393009 hit #8
Contig NODE_1_length_566821_cov_8.393009 hit #9
Contig NODE_1_length_566821_cov_8.393009 hit #10
Contig NODE_1_length_566821_cov_8.393009 hit #11
Contig NODE_1_length_566821_cov_8.393009 hit #12
Contig NODE_1_length_566821_cov_8.393009 hit #13
Contig NODE_1_length_566821_cov_8.393009 hit #14
Contig NODE_1_length_566821_cov_8.393009 hit #15
Contig NODE_1_length_566821_cov_8.393009 hit #16
Contig NODE_1_length_566821_cov_8.393009 hit #17
Contig NODE_1_length_566821_cov_8.393009 hit #18
Contig NODE_1_length_566821_cov_8.393009 hit #19
Contig NODE_1_length_566821_cov_8.393009 hit #20
Contig NODE_1_length_566821_cov_8.393009 hit #21
Contig NODE_1_length_566821_cov_8.393009 hit #22

Contig NODE_28_length_56662_cov_9.648147 hit #1
Contig NODE_28_length_56662_cov_9.648147 hit #2

Contig NODE_25_length_69837_cov_10.709066 hit #1
Contig NODE_25_length_69837_cov_10.709066 hit #2
Contig NODE_25_length_69837_cov_10.709066 hit #3
Contig NODE_25_length_69837_cov_10.709066 hit #4

Contig NODE_20_length_85165_cov_8.967991 hit #1
Contig NODE_20_length_85165_cov_8.967991 hit #2

Contig NODE_13_length_165527_cov_10.023307 hit #1
Contig NODE_13_length_165527_cov_10.023307 hit #2
Contig NODE_13_length_165527_cov_10.023307 hit #3

Contig NODE_5_length_361067_cov_9.330210 hit #1
Contig NODE_5_length_361067_cov_9.330210 hit #2

Contig NODE_46_length_1018_cov_16.254770 hit #1
Contig NODE_46_length_1018_cov_16.254770 hit #2

Contig NODE_35_length_27820_cov_67.851804 hit #1
Contig NODE_35_length_27820_cov_67.851804 hit #2
Contig NODE_35_length_27820_cov_67.851804 hit #3

Contig NODE_29_length_49941_cov_9.629522 hit #1
Contig NODE_29_length_49941_cov_9.629522 hit #2

Contig NODE_15_length_121110_cov_9.734285 hit #1
Contig NODE_15_length_121110_cov_9.734285 hit #2
Contig NODE_15_length_121110_cov_9.734285 hit #3

Contig NODE_37_length_21672_cov_17.473938 hit #1
Contig NODE_37_length_21672_cov_17.473938 hit #2

Contig NODE_3_length_470369_cov_9.494788 hit #1
Contig NODE_3_length_470369_cov_9.494788 hit #2
Contig NODE_3_length_470369_cov_9.494788 hit #3
Contig NODE_3_length_470369_cov_9.494788 hit #4
Contig NODE_3_length_470369_cov_9.494788 hit #5
Contig NODE_3_length_470369_cov_9.494788 hit #6
Contig NODE_3_length_470369_cov_9.494788 hit #7
Contig NODE_3_length_470369_cov_9.494788 hit #8
Contig NODE_3_length_470369_cov_9.494788 hit #9
Contig NODE_3_length_470369_cov_9.494788 hit #10

Contig NODE_16_length_96205_cov_11.645944 hit #1
Contig NODE_16_length_96205_cov_11.645944 hit #2

Contig NODE_4_length_398729_cov_7.868694 hit #1
Contig NODE_4_length_398729_cov_7.868694 hit #2
Contig NODE_4_length_398729_cov_7.868694 hit #3
Contig NODE_4_length_398729_cov_7.868694 hit #4
Contig NODE_4_length_398729_cov_7.868694 hit #5
Contig NODE_4_length_398729_cov_7.868694 hit #6
Contig NODE_4_length_398729_cov_7.868694 hit #7
Contig NODE_4_length_398729_cov_7.868694 hit #8
Contig NODE_4_length_398729_cov_7.868694 hit #9
Contig NODE_4_length_398729_cov_7.868694 hit #10
Contig NODE_4_length_398729_cov_7.868694 hit #11
Contig NODE_4_length_398729_cov_7.868694 hit #12
Contig NODE_4_length_398729_cov_7.868694 hit #13
Contig NODE_4_length_398729_cov_7.868694 hit #14
Contig NODE_4_length_398729_cov_7.868694 hit #15

Contig NODE_9_length_237731_cov_8.189807 hit #1
Contig NODE_9_length_237731_cov_8.189807 hit #2
Contig NODE_9_length_237731_cov_8.189807 hit #3
Contig NODE_9_length_237731_cov_8.189807 hit #4
Contig NODE_9_length_237731_cov_8.189807 hit #5
Contig NODE_9_length_237731_cov_8.189807 hit #6

Contig NODE_7_length_272670_cov_9.299336 hit #1
Contig NODE_7_length_272670_cov_9.299336 hit #2
Contig NODE_7_length_272670_cov_9.299336 hit #3
Contig NODE_7_length_272670_cov_9.299336 hit #4
Contig NODE_7_length_272670_cov_9.299336 hit #5
Contig NODE_7_length_272670_cov_9.299336 hit #6
Contig NODE_7_length_272670_cov_9.299336 hit #7
Contig NODE_7_length_272670_cov_9.299336 hit #8

Contig NODE_41_length_1953_cov_14.457831 hit #1
Contig NODE_41_length_1953_cov_14.457831 hit #2
Contig NODE_41_length_1953_cov_14.457831 hit #3

Contig NODE_98_length_314_cov_0.240642 hit #1

Contig NODE_14_length_153665_cov_8.989794 hit #1

Contig NODE_11_length_214047_cov_8.768119 hit #1

[Contig NODE_11_length_214047_cov_8.768119 hit #2](#)
[Contig NODE_11_length_214047_cov_8.768119 hit #3](#)
[Contig NODE_11_length_214047_cov_8.768119 hit #4](#)
[Contig NODE_11_length_214047_cov_8.768119 hit #5](#)

[Contig NODE_12_length_196820_cov_8.472076 hit #1](#)

[Contig NODE_42_length_1203_cov_15.188662 hit #1](#)

[Contig NODE_6_length_356231_cov_9.759612 hit #1](#)
[Contig NODE_6_length_356231_cov_9.759612 hit #2](#)

[Contig NODE_2_length_478638_cov_9.783182 hit #1](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #2](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #3](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #4](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #5](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #6](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #7](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #8](#)
[Contig NODE_2_length_478638_cov_9.783182 hit #9](#)

[Contig NODE_30_length_48292_cov_15.609924 hit #1](#)

[Contig NODE_18_length_93281_cov_10.372534 hit #1](#)

[Contig NODE_10_length_222279_cov_9.401747 hit #1](#)

[Contig NODE_8_length_247549_cov_9.773464 hit #1](#)
[Contig NODE_8_length_247549_cov_9.773464 hit #2](#)
[Contig NODE_8_length_247549_cov_9.773464 hit #3](#)

BLASTN 2.2.26 [Sep-21-2011]

Reference:
Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer,
Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997),
"Gapped BLAST and PSI-BLAST: a new generation of protein database search
programs", Nucleic Acids Res. 25:3389-3402.

Query= NC_011281.1
         (64,537 letters)

Database: /vol/rast-prod/jobs/697071/rp/573.23855/contigs
           128 sequences; 5,874,982 total letters

Searching..done

	Score	E
Sequences producing significant alignments:	(bits)	Value
NODE_32_length_43518_cov_20.448595	8.627e+04	0.0
NODE_31_length_45171_cov_18.968520	2.089e+04	0.0
NODE_44_length_1057_cov_84.511828	2095	0.0
NODE_23_length_71673_cov_15.369161	1086	0.0
NODE_27_length_62334_cov_15.396226	771	0.0
NODE_1_length_566821_cov_8.393009	254	1e-65
NODE_28_length_56662_cov_9.648147	252	4e-65
NODE_25_length_69837_cov_10.709066	252	4e-65
NODE_20_length_85165_cov_8.967991	252	4e-65
NODE_13_length_165527_cov_10.023307	252	4e-65
NODE_5_length_361067_cov_9.330210	252	4e-65
NODE_46_length_1018_cov_16.254770	250	2e-64

```
NODE_35_length_27820_cov_67.851804                    250    2e-64
NODE_29_length_49941_cov_9.629522                     250    2e-64
NODE_15_length_121110_cov_9.734285                    250    2e-64
NODE_37_length_21672_cov_17.473938                    248    7e-64
NODE_3_length_470369_cov_9.494788                     190    1e-46
NODE_16_length_96205_cov_11.645944                    172    3e-41
NODE_4_length_398729_cov_7.868694                     100    4e-19
NODE_9_length_237731_cov_8.189807                      88    1e-15
NODE_7_length_272670_cov_9.299336                      74    2e-11
NODE_41_length_1953_cov_14.457831                      54    2e-05
NODE_98_length_314_cov_0.240642                        48    0.001
NODE_14_length_153665_cov_8.989794                     44    0.020
NODE_11_length_214047_cov_8.768119                     42    0.079
NODE_12_length_196820_cov_8.472076                     40    0.31
NODE_42_length_1203_cov_15.188662                      38    1.2
NODE_6_length_356231_cov_9.759612                      38    1.2
NODE_2_length_478638_cov_9.783182                      38    1.2
NODE_30_length_48292_cov_15.609924                     36    4.9
NODE_18_length_93281_cov_10.372534                     36    4.9
NODE_10_length_222279_cov_9.401747                     36    4.9
NODE_8_length_247549_cov_9.773464                      36    4.9
```

>NODE_32_length_43518_cov_20.448595
          Length = 43518

 Score = 8.627e+04 bits (43518), Expect = 0.0
 Identities = 43518/43518 (100%)
 Strand = Plus / Minus

```
Query: 14967 ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc 15026
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43518 ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc 43459


Query: 15027 gtattgcctgaaaacacaacccgctacgggggagacttacccgaaatctgatttattcaa 15086
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43458 gtattgcctgaaaacacaacccgctacgggggagacttacccgaaatctgatttattcaa 43399


Query: 15087 caaagccgcatatagttcaagagcttacaatctctaagttctgcataaatcctcaataga 15146
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43398 caaagccgcatatagttcaagagcttacaatctctaagttctgcataaatcctcaataga 43339


Query: 15147 aaccatacttttattatggtgtgatggatatactcgcagacagtccagccaccaattca 15206
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43338 aaccatacttttattatggtgtgatggatatactcgcagacagtccagccaccaattca 43279


Query: 15207 actccctccggcaatctgtcaatatgaatccgaaccgggatacgctgcgcgagccgcacc 15266
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43278 actccctccggcaatctgtcaatatgaatccgaaccgggatacgctgcgcgagccgcacc 43219


Query: 15267 cagctaaaggttggctcgacattaggcaggccaagcccccggtctcgtcattgttatca 15326
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43218 cagctaaaggttggctcgacattaggcaggccaagcccccggtctcgtcattgttatca 43159


Query: 15327 tctattccgcgcccgatactctcaacatgccccgtgatcaccggcttaaatcccatcagc 15386
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43158 tctattccgcgcccgatactctcaacatgccccgtgatcaccggcttaaatcccatcagc 43099


Query: 15387 gtaatgtgtgcagtatttcccgtgcggatatgttgcaacttagtctcttcaaaatagcca 15446
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43098 gtaatgtgtgcagtatttcccgtgcggatatgttgcaacttagtctcttcaaaatagcca 43039
```

```
Query: 15447  accacccaaaaactattggcatcaatgatggaaagtttagtttctcccgctgtggcatag  15506
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 43038  accacccaaaaactattggcatcaatgatggaaagtttagtttctcccgctgtggcatag  42979


Query: 15507  tcaccagggcgaagccgcaaatgtgtgacatagcccgtaaccggagagcgaacaatagca  15566
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42978  tcaccagggcgaagccgcaaatgtgtgacatagcccgtaaccggagagcgaacaatagca  42919


Query: 15567  tgcgataagttaagctctgcaaggtccagcgcagccagtgcaccgtggtaattagccgca  15626
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42918  tgcgataagttaagctctgcaaggtccagcgcagccagtgcaccgtggtaattagccgca  42859


Query: 15627  gcgacgcttgctgcgctggctgtttgttgtaaatcctcgctggaaatcacccctttaatc  15686
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42858  gcgacgcttgctgcgctggctgtttgttgtaaatcctcgctggaaatcacccctttaatc  42799


Query: 15687  tgagagcgtcgcctcgccgcatcctggcgcatcagcatttcatgacgtttcgcctcaaca  15746
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42798  tgagagcgtcgcctcgccgcatcctggcgcatcagcatttcatgacgtttcgcctcaaca  42739


Query: 15747  tcagcctgggcgctgaccactgccaacctcaaccagtgcgggtcaatggaatagagcaca  15806
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42738  tcagcctgggcgctgaccactgccaacctcaaccagtgcgggtcaatggaatagagcaca  42679


Query: 15807  tcgccccgattaacccactgattatcgcggacggccacattcagaaccggtccagagaca  15866
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42678  tcgccccgattaacccactgattatcgcggacggccacattcagaaccggtccagagaca  42619


Query: 15867  tccggcgcaatctggaccacatccgcacgaacccgaccatcgcgggtccagggagtttgc  15926
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42618  tccggcgcaatctggaccacatccgcacgaacccgaccatcgcgggtccagggagtttgc  42559


Query: 15927  acataatgtttccagagaataaaagccaaaagcgtagcaaccgccacagcgctgagcgtc  15986
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42558  acataatgtttccagagaataaaagccaaaagcgtagcaaccgccacagcgctgagcgtc  42499


Query: 15987  agcaaatagcggcccagtagagaaagtaacgatttcattttaaaaaccccagttcggtca  16046
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42498  agcaaatagcggcccagtagagaaagtaacgatttcattttaaaaaccccagttcggtca  42439


Query: 16047  gtccctgcaacaacaggtaaaaagtaataataaagatggaaaaatcgatcatcgggcgaa  16106
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42438  gtccctgcaacaacaggtaaaaagtaataataaagatggaaaaatcgatcatcgggcgaa  42379


Query: 16107  acggcaagcgacggtaacccttgcttagcgagaaaagctgcacgagtaatagcgtacagg  16166
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42378  acggcaagcgacggtaacccttgcttagcgagaaaagctgcacgagtaatagcgtacagg  42319


Query: 16167  tgagcgcgacgagggaaattaacagtagaccgggtacaaaaacgccctcaatattgaaat  16226
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 42318  tgagcgcgacgagggaaattaacagtagaccgggtacaaaaacgccctcaatattgaaat  42259


Query: 16227  cattgatcatcggcatgctccatttcctgagtgcttaatgcgcagtacagatcaaccagt  16286
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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```
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              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 498    ggagtcactgctaattaatggtgtggctttcaagaattttgcaggtgcctcaatcagttc 439


Query: 58047  tgtacctgaaaaagcgataaatgcaagccccatagggcgtctcaagggatgtaaacctcc 58106
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 438    tgtacctgaaaaagcgataaatgcaagccccatagggcgtctcaagggatgtaaacctcc 379


Query: 58107  gttcctaataatgcatggaagtaaggatacattagtatcacctaaacagagcgcaacgct 58166
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 378    gttcctaataatgcatggaagtaaggatacattagtatcacctaaacagagcgcaacgct 319


Query: 58167  ttacaaagcccttttggaatcgggaaacaaagcggactacgtccttatcgaaggcgcaga 58226
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 318    ttacaaagcccttttggaatcgggaaacaaagcggactacgtccttatcgaaggcgcaga 259


Query: 58227  acacggtgatgatcactggtatcaacccgttgtcataaatagggttgttgactggttccg 58286
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 258    acacggtgatgatcactggtatcaacccgttgtcataaatagggttgttgactggttccg 199


Query: 58287  cgtgcatctttgtcctgaaaatatatgacgactgacgctttgctgaatcactcagactgt 58346
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 198    cgtgcatctttgtcctgaaaatatatgacgactgacgctttgctgaatcactcagactgt 139


Query: 58347  ttggtagcaacgtccgcttcacgccctgagacattcgacaagctttttatggcttcagta 58406
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 138    ttggtagcaacgtccgcttcacgccctgagacattcgacaagctttttatggcttcagta 79


Query: 58407  agggcgactttcgcgcttccagtgccagcaaatatttcgcttcgtcgtaccgggttcggg 58466
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 78     agggcgactttcgcgcttccagtgccagcaaatatttcgcttcgtcgtaccgggttcggg 19


Query: 58467  tcttccagcagcggtaaa 58484
```

```
                   ||||||||||||||||||
Sbjct: 18      tcttccagcagcggtaaa 1
```

```
 Score =  694 bits (350), Expect = 0.0
 Identities = 350/350 (100%)
 Strand = Plus / Plus
```

```
Query: 3286    agctaccgtgttaagttccctggtgttgctgaaataactgaagaacatcccctaagcgt 3345
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 19178   agctaccgtgttaagttccctggtgttgctgaaataactgaagaacatcccctaagcgt 19237
```

```
Query: 3346    cagcagcaagctgccgccgctaaggccccggaaatcacgccctttacgtcgtaaacgccg 3405
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 19238   cagcagcaagctgccgccgctaaggccccggaaatcacgccctttacgtcgtaaacgccg 19297
```

```
Query: 3406    taaagcccgctcaccggggttaaaagggattactttaacttcttcattgctgtaagcggg 3465
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 19298   taaagcccgctcaccggggttaaaagggattactttaacttcttcattgctgtaagcggg 19357
```

```
Query: 3466    ttaaggctaatcagggcagggggggagggtggcagaatttatagccaggtaaccggctacg 3525
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 19358   ttaaggctaatcagggcagggggggagggtggcagaatttatagccaggtaaccggctacg 19417
```

```
Query: 3526    ccgggctttcggcgccatttgactccacagatacatgcagcttcatctggcgcctccatg 3585
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 19418   ccgggctttcggcgccatttgactccacagatacatgcagcttcatctggcgcctccatg 19477
```

```
Query: 3586    ccgctaacgcggcatccgatgctgtagtctttaatgtctgctttgtgcca 3635
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 19478   ccgctaacgcggcatccgatgctgtagtctttaatgtctgctttgtgcca 19527
```

```
 Score =  319 bits (161), Expect = 2e-85
 Identities = 161/161 (100%)
 Strand = Plus / Plus
```

```
Query: 3478    agggcagggggggagggtggcagaatttatagccaggtaaccggctacgccgggctttcgg 3537
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 14614   agggcagggggggagggtggcagaatttatagccaggtaaccggctacgccgggctttcgg 14673
```

```
Query: 3538    cgccatttgactccacagatacatgcagcttcatctggcgcctccatgccgctaacgcgg 3597
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 14674   cgccatttgactccacagatacatgcagcttcatctggcgcctccatgccgctaacgcgg 14733
```

```
Query: 3598    catccgatgctgtagtctttaatgtctgctttgtgccaaat 3638
               |||||||||||||||||||||||||||||||||||||||||
Sbjct: 14734   catccgatgctgtagtctttaatgtctgctttgtgccaaat 14774
```

```
Score =  252 bits (127), Expect = 4e-65
Identities = 127/127 (100%)
Strand = Plus / Plus


Query: 5016 tttaccgctgctggaagacccgaacccggtacgacgaagcgaaatatttgctggcactgg 5075
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1    tttaccgctgctggaagacccgaacccggtacgacgaagcgaaatatttgctggcactgg 60


Query: 5076 aagcgcgaaagtcgcccttactgaagccataaaaagcttgtcgaatgtctcagggcgtga 5135
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 61   aagcgcgaaagtcgcccttactgaagccataaaaagcttgtcgaatgtctcagggcgtga 120


Query: 5136 agcggac 5142
             |||||||
Sbjct: 121  agcggac 127




Score =  147 bits (74), Expect = 2e-33
Identities = 98/106 (92%)
Strand = Plus / Plus


Query: 623   ggcagaacctgtcaaaacagcagccggctgcgccgggtaacggcgccatttacccgcggt 682
             ||||||||||||||||||||||||||||||||||||||  |||||||||||| | ||| ||
Sbjct: 20214 ggcagaacctgtcaaaacagcagccggctgcgccgggcgacggcgccatttgcacgcagt 20273


Query: 683   actccattcaacttcagctggcgcctccatgccgctgacgcggcat 728
             |||||||||||| | || ||||||||||||||||||||||||||||
Sbjct: 20274 actccattcaactgctgcaggcgcctccatgccgctgacgcggcat 20319




Score = 81.8 bits (41), Expect = 9e-14
Identities = 41/41 (100%)
Strand = Plus / Minus


Query: 2891  gccttaacgtacaataattttcgatatccaaactgacccct 2931
             |||||||||||||||||||||||||||||||||||||||||
Sbjct: 33931 gccttaacgtacaataattttcgatatccaaactgacccct 33891




Score = 75.8 bits (38), Expect = 6e-12
Identities = 47/50 (94%)
Strand = Plus / Plus


Query: 2882  caaaaaatggccttaacgtacaataattttcgatatccaaactgacccct 2931
             |||||||| ||||||||||||||||||||||||||||||||||| |||||
Sbjct: 35970 caaaaaataaccttaacgtacaataattttcgatatccaaactgccccct 36019
```

```
 Score = 73.8 bits (37), Expect = 2e-11
 Identities = 40/41 (97%)
 Strand = Plus / Plus


Query: 22465  tagggggcagtttggatatcgaaaattattgtacgttaagg  22505
               ||||||| |||||||||||||||||||||||||||||||||
Sbjct: 33890  taggggtcagtttggatatcgaaaattattgtacgttaagg  33930




 Score = 73.8 bits (37), Expect = 2e-11
 Identities = 40/41 (97%)
 Strand = Plus / Plus


Query: 24555  ccttaacgtacaataattttcgatatccaaactgacccccta  24595
               |||||||||||||||||||||||||||||||||||| ||||||
Sbjct: 35980  ccttaacgtacaataattttcgatatccaaactgcccccta  36020




 Score = 67.9 bits (34), Expect = 1e-09
 Identities = 40/42 (95%)
 Strand = Plus / Plus


Query: 48112  ccctgctggctcagaggcgacatcgcctctgagccagcaggg  48153
               ||||||||||||||||||| |||||||||||||||||||||
Sbjct: 10332  ccctgctggctcagaggcgatgtcgcctctgagccagcaggg  10373




 Score = 67.9 bits (34), Expect = 1e-09
 Identities = 74/89 (83%), Gaps = 10/89 (11%)
 Strand = Plus / Plus


Query: 694    cttcagctggcgcctccatgccgctgacgcggcatccggaagtttcccatgctgtagact  753
               ||||| |||||||||||||||||||| ||||||||||              |||||||| ||
Sbjct: 14702  cttcatctggcgcctccatgccgctaacgcggcatccg----------atgctgtagtct  14751


Query: 754    ttaacgtctgctttgtgccaaaagcggac  782
               |||| ||||||||||||||| ||||||
Sbjct: 14752  ttaatgtctgctttgtgccaaatgcggac  14780




 Score = 60.0 bits (30), Expect = 3e-07
 Identities = 36/38 (94%)
 Strand = Plus / Plus


Query: 694    cttcagctggcgcctccatgccgctgacgcggcatccg  731
               ||||| |||||||||||||||||||| |||||||||||
Sbjct: 19458  cttcatctggcgcctccatgccgctaacgcggcatccg  19495
```

```
 Score = 48.1 bits (24), Expect = 0.001
 Identities = 30/32 (93%)
 Strand = Plus / Plus


Query: 742    atgctgtagactttaacgtctgctttgtgcca 773
              ||||||||| |||||| ||||||||||||||||
Sbjct: 19496 atgctgtagtctttaatgtctgctttgtgcca 19527




 Score = 46.1 bits (23), Expect = 0.005
 Identities = 26/27 (96%)
 Strand = Plus / Plus


Query: 3574  ggcgcctccatgccgctaacgcggcat 3600
             ||||||||||||||||||| |||||||||
Sbjct: 20293 ggcgcctccatgccgctgacgcggcat 20319




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 21/21 (100%)
 Strand = Plus / Plus


Query: 14034 tgcggctttgttgaataaatc 14054
             |||||||||||||||||||||
Sbjct: 43389 tgcggctttgttgaataaatc 43409




 Score = 40.1 bits (20), Expect = 0.31
 Identities = 20/20 (100%)
 Strand = Plus / Plus


Query: 24598 ggcactgttgcaaagatcgt 24617
             ||||||||||||||||||||
Sbjct: 33064 ggcactgttgcaaagatcgt 33083




 Score = 40.1 bits (20), Expect = 0.31
 Identities = 20/20 (100%)
 Strand = Plus / Plus


Query: 25402 acgatctttgcaacagtgcc 25421
             ||||||||||||||||||||
Sbjct: 33868 acgatctttgcaacagtgcc 33887
```

>NODE_31_length_45171_cov_18.968520
          Length = 45171

 Score = 2.089e+04 bits (10538), Expect = 0.0
 Identities = 10538/10538 (100%)
 Strand = Plus / Plus

Query: 3625   gctttgtgccaaatatagtcattcacaccctgagagttacacttttaagtgattcagggt 3684
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 34634 gctttgtgccaaatatagtcattcacaccctgagagttacacttttaagtgattcagggt 34693

Query: 3685   atgcgcttattggttacgaatattgtgccagaatcatgtaatttgatgattgccgctttg 3744
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 34694 atgcgcttattggttacgaatattgtgccagaatcatgtaatttgatgattgccgctttg 34753

Query: 3745   ctttcgagccagtaagtgctccacgttcgctaacgaatactcagggcatgcagaaaaact 3804
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 34754 ctttcgagccagtaagtgctccacgttcgctaacgaatactcagggcatgcagaaaaact 34813

Query: 3805   gctgactatatttctttcgaagagcgtggaatgcataccaatccccgataaaaaggagtt 3864
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 34814 gctgactatatttctttcgaagagcgtggaatgcataccaatccccgataaaaaggagtt 34873

Query: 3865   ggtgatgactgcgaaagatcagtttgctgcttatgttggtttggactgggcagataaaaa 3924
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 34874 ggtgatgactgcgaaagatcagtttgctgcttatgttggtttggactgggcagataaaaa 34933

Query: 3925   acacgatgtctgcgttcagtttaaaaacggtgatcgcatatttcatgtgattgaacatac 3984
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 34934 acacgatgtctgcgttcagtttaaaaacggtgatcgcatatttcatgtgattgaacatac 34993

Query: 3985   gcctgaggcacttgatatctggctcaatgagttacaccagagggcgaaaggcaggattgc 4044
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 34994 gcctgaggcacttgatatctggctcaatgagttacaccagagggcgaaaggcaggattgc 35053

Query: 4045   tattgccgttgagctgaagaaaggcccggtggtgtatgcactccagaagtacccatttgt 4104
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35054 tattgccgttgagctgaagaaaggcccggtggtgtatgcactccagaagtacccatttgt 35113

Query: 4105   cactgtttttccagtacacgcgttgtcactggcccgctaccgacaggctttctggcccag 4164
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35114 cactgtttttccagtacacgcgttgtcactggcccgctaccgacaggctttctggcccag 35173

Query: 4165   tggtgcgaaggatgatccgcaggatgctgagctggcattagacctgatgctacgttatcc 4224
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35174 tggtgcgaaggatgatccgcaggatgctgagctggcattagacctgatgctacgttatcc 35233

Query: 4225   ccacaagataaaagccattgaagccgacaatccggatatccgattactccagcaattagt 4284
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35234 ccacaagataaaagccattgaagccgacaatccggatatccgattactccagcaattagt 35293

Query: 4285   tgagcagcgccgactgctggtcgaagacaagcgtcgctttgttaatcggctcatcaatac 4344
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35294 tgagcagcgccgactgctggtcgaagacaagcgtcgctttgttaatcggctcatcaatac 35353

```
Query: 4345   gcttaagcagtattacccccagcccctggaatggttctcccatcgggacagctcactgtt 4404
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35354  gcttaagcagtattacccccagcccctggaatggttctcccatcgggacagctcactgtt 35413


Query: 4405   ctgcgagctaatcattcgctggccgagtctgcaacaactcaaacgggctcgcagcgatac 4464
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35414  ctgcgagctaatcattcgctggccgagtctgcaacaactcaaacgggctcgcagcgatac 35473


Query: 4465   tgtccgtcattttatgaatgctaaaggtggtcctgctgttgcatataccgaacagcgggt 4524
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35474  tgtccgtcattttatgaatgctaaaggtggtcctgctgttgcatataccgaacagcgggt 35533


Query: 4525   tgcaagtattgccagcgctattcccctggccacagataaaactgtcatcgaggcaaatgc 4584
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35534  tgcaagtattgccagcgctattcccctggccacagataaaactgtcatcgaggcaaatgc 35593


Query: 4585   attgatggcaacagcacttgcatcccaaatcaaactgacaggcgacctagtcagaaccta 4644
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35594  attgatggcaacagcacttgcatcccaaatcaaactgacaggcgacctagtcagaaccta 35653


Query: 4645   cgatgaacgtattgaatccttattcgatacgcttccggatgcagaactgttcaaatcact 4704
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35654  cgatgaacgtattgaatccttattcgatacgcttccggatgcagaactgttcaaatcact 35713


Query: 4705   acctggaatggggccgtgtatgggcccacggatgcttgcagcactgggtgataaccgcaa 4764
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35714  acctggaatggggccgtgtatgggcccacggatgcttgcagcactgggtgataaccgcaa 35773


Query: 4765   ccgcttcaacagcgccgaagaaattcaaaactacgctggcatcgcaccagtaaccgagcg 4824
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35774  ccgcttcaacagcgccgaagaaattcaaaactacgctggcatcgcaccagtaaccgagcg 35833


Query: 4825   aagtggtcaaaaatcttgggtacactggcgttggcagtgtgccaagttcgtccggcagac 4884
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35834  aagtggtcaaaaatcttgggtacactggcgttggcagtgtgccaagttcgtccggcagac 35893


Query: 4885   attcgtggaatggactgcgaagacggttaactcatcgtactgggccagactttattacca 4944
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35894  attcgtggaatggactgcgaagacggttaactcatcgtactgggccagactttattacca 35953


Query: 4945   gggccagcgagaaaaagggaaatctcatcagtcagcgatccgggctctggcatttaaatg 5004
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 35954  gggccagcgagaaaaagggaaatctcatcagtcagcgatccgggctctggcatttaaatg 36013


Query: 5005   gataaggatcatttaccgctgctggaagacccgaacccggtacgacgaagcgaaatattt 5064
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36014  gataaggatcatttaccgctgctggaagacccgaacccggtacgacgaagcgaaatattt 36073


Query: 5065   gctggcactggaagcgcgaaagtcgcccttactgaagccataaaaagcttgtcgaatgtc 5124
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36074  gctggcactggaagcgcgaaagtcgcccttactgaagccataaaaagcttgtcgaatgtc 36133


Query: 5125   tcagggcgtgaagcggacattactgcacaccgtaagtagtcttatgtgtctgaaatgaaa 5184
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36134  tcagggcgtgaagcggacattactgcacaccgtaagtagtcttatgtgtctgaaatgaaa 36193
```

```
Query: 5185   ccgcagcccgatagttactttctctcctgcccgttatttgaactgaaatacgcaatgtcc 5244
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36194  ccgcagcccgatagttactttctctcctgcccgttatttgaactgaaatacgcaatgtcc 36253


Query: 5245   taaataaccaccataatcgtcatttacgacatttctttctcacttatgattctctcatcg 5304
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36254  taaataaccaccataatcgtcatttacgacatttctttctcacttatgattctctcatcg 36313


Query: 5305   aatcaatggtgatcgaaaggagtctgcaatgagtctcgcaacacaaccaggtaaaggcac 5364
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36314  aatcaatggtgatcgaaaggagtctgcaatgagtctcgcaacacaaccaggtaaaggcac 36373


Query: 5365   tgccgtaatcactggtgcatccaccggcatcggtgctgtttacgccagtcgactggcgcg 5424
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36374  tgccgtaatcactggtgcatccaccggcatcggtgctgtttacgccagtcgactggcgcg 36433


Query: 5425   catgggatacgacctgatcattatcgcccgtaatcataacctcctgaatcagatggccag 5484
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36434  catgggatacgacctgatcattatcgcccgtaatcataacctcctgaatcagatggccag 36493


Query: 5485   ccacattactgctgacaccgcccgcaatgtggaagtggtgacaaccgatctgggggatgc 5544
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36494  ccacattactgctgacaccgcccgcaatgtggaagtggtgacaaccgatctgggggatgc 36553


Query: 5545   tcaacagcttgctgctctggagaaaaaactgcgtgccgatgccagcattaccctgctggt 5604
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36554  tcaacagcttgctgctctggagaaaaaactgcgtgccgatgccagcattaccctgctggt 36613


Query: 5605   gaacaatgccggtgtcggaactcatacgccgttgttgtcgagcgatgtcgatcaaatgca 5664
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36614  gaacaatgccggtgtcggaactcatacgccgttgttgtcgagcgatgtcgatcaaatgca 36673


Query: 5665   ggcgatgattaatctcaatgtcgtcgccctgacccgtctgacttacagcatggtccctgg 5724
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 36674  ggcgatgattaatctcaatgtcgtcgccctgacccgtctgacttacagcatggtccctgg 36733


Query: 5725   ttttgtcgcgcgaggtgtgggtgccatcatcaacatctcatcgattgtcagccttgcgcc 5784
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Sbjct: 45074  tgagttgaaggatcagatcacgcatcttcccgacaacgcagaccgttccgtggcaaagca  45133


Query: 14125  aaagttcaaaatcaccaactggcccacctacaataaag  14162
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Sbjct: 45134  aaagttcaaaatcaccaactggcccacctacaataaag  45171
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 Score = 1.225e+04 bits (6180), Expect = 0.0
 Identities = 6180/6180 (100%)
 Strand = Plus / Minus
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Query: 58358  gtccgcttcacgccctgagacattcgacaagctttttatggcttcagtaagggcgacttt  58417
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Sbjct: 36151  gtccgcttcacgccctgagacattcgacaagctttttatggcttcagtaagggcgacttt  36092


Query: 58418  cgcgcttccagtgccagcaaatatttcgcttcgtcgtaccgggttcgggtcttccagcag  58477
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Sbjct: 36091  cgcgcttccagtgccagcaaatatttcgcttcgtcgtaccgggttcgggtcttccagcag  36032


Query: 58478  cggtaaatgatccttatccatttaaatgccagagcccggatcgctgactgatgagatttc  58537
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Sbjct: 36031  cggtaaatgatccttatccatttaaatgccagagcccggatcgctgactgatgagatttc  35972


Query: 58538  cctttttctcgctggccctggtaataaagtctggcccagtacgatgagttaaccgtcttc  58597
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Sbjct: 35971  cctttttctcgctggccctggtaataaagtctggcccagtacgatgagttaaccgtcttc  35912


Query: 58598  gcagtccattccacgaatgtctgccggacgaacttggcacactgccaacgccagtgtacc  58657
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Sbjct: 35671  gattcaatacgttcatcgtaggttctgactaggtcgcctgtcagtttgatttgggatgca  35612


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 Identities = 3412/3412 (100%)
 Strand = Plus / Minus


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                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1432   gcttcattcgcagcgggctttcggccgtctgctcgatatcacggactttgagcatattga 1373


Query: 2041   tgaggtggttgcggagattgagtctaccgtcggtccggttgatgtgctggtaaacaatgc 2100
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1372   tgaggtggttgcggagattgagtctaccgtcggtccggttgatgtgctggtaaacaatgc 1313


Query: 2101   cggttacggtcatgaaggcataatggaagaatcctcgctcgcagagatgcgccgccagtt 2160
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1312   cggttacggtcatgaaggcataatggaagaatcctcgctcgcagagatgcgccgccagtt 1253


Query: 2161   tgaagtcaatgtgtttggcgcagtggcaatgatcaaagccatgctaccgggcatgcgcca 2220
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1252   tgaagtcaatgtgtttggcgcagtggcaatgatcaaagccatgctaccgggcatgcgcca 1193


Query: 2221   gcgtcgtcatggccatattattaatatcacctcgatgggcagtttcattaccctgcccgg 2280
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1192   gcgtcgtcatggccatattattaatatcacctcgatgggcagtttcattaccctgcccgg 1133


Query: 2281   catcagctattactgcggcagcaaatttgcgctggaaggaatatcagaaacgttaagtaa 2340
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1132   catcagctattactgcggcagcaaatttgcgctggaaggaatatcagaaacgttaagtaa 1073


Query: 2341   agagctggctccgttcaacatacacgtaaccgccgtggcacctggctcgtttcgcaccga 2400
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1072   agagctggctccgttcaacatacacgtaaccgccgtggcacctggctcgtttcgcaccga 1013


Query: 2401   ctgggccggacgatcgatggtacgcagcgctcgcagcatcccggactacgacgctttatt 2460
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1012   ctgggccggacgatcgatggtacgcagcgctcgcagcatcccggactacgacgctttatt 953


Query: 2461   tgatccgattcgtcaggcacgtgaagaaaaagcggtaagcaactcggcgatcccgttaa 2520
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 952    tgatccgattcgtcaggcacgtgaagaaaaagcggtaagcaactcggcgatcccgttaa 893


Query: 2521   ggccgcacatgccatgctggcaatgattgagagtcagaaccctccaacacatttattgtt 2580
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 892    ggccgcacatgccatgctggcaatgattgagagtcagaaccctccaacacatttattgtt 833


Query: 2581   aggcagtgatgcattaagtttagtgcggcaaaagctcgaggcattaggtaaggaaataga 2640
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 832    aggcagtgatgcattaagtttagtgcggcaaaagctcgaggcattaggtaaggaaataga 773


Query: 2641   acaatgggaagaaataacacgttcaacggatggctgatcagctgctgagacagagagcat 2700
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 772    acaatgggaagaaataacacgttcaacggatggctgatcagctgctgagacagagagcat 713


Query: 2701   actggataatggattatggctggtcgcacaagcgctcatttcgctcgggcatcatgctga 2760
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 712    actggataatggattatggctggtcgcacaagcgctcatttcgctcgggcatcatgctga 653


Query: 2761   tgcccttgcagttcagccttttttactttcaggcttccaggcttgcggtgaaatcaacttc 2820
                 |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 652    tgcccttgcagttcagccttttttactttcaggcttccaggcttgcggtgaaatcaacttc 593
```

```
Query: 2821  cgctcctcgctcaaagctgcctgtcaacgtgatcgatcgctcttaactcggcctggaagt  2880
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 592   cgctcctcgctcaaagctgcctgtcaacgtgatcgatcgctcttaactcggcctggaagt  533


Query: 2881  acaaaaaatggccttaacgtacaataattttcgatatccaaactgacccctcacaggccc  2940
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 532   acaaaaaatggccttaacgtacaataattttcgatatccaaactgacccctcacaggccc  473


Query: 2941  aggatgcggtgaaaatgacgccctccggaagcgaacacatcacctcaggttccggagaga  3000
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 472   aggatgcggtgaaaatgacgccctccggaagcgaacacatcacctcaggttccggagaga  413


Query: 3001  agcaaacacatacagccgcgctgcgtacatcgctgcagcaggaggacagactcctcaggg  3060
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 412   agcaaacacatacagccgcgctgcgtacatcgctgcagcaggaggacagactcctcaggg  353


Query: 3061  ctgaagagcagggcataatcgaccagggctccagaaccgctatccatatccgggaacagg  3120
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 352   ctgaagagcagggcataatcgaccagggctccagaaccgctatccatatccgggaacagg  293


Query: 3121  aggtacagcgagacatccgggaactgcgctaacaacccgggctctatggggatactttat  3180
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 292   aggtacagcgagacatccgggaactgcgctaacaacccgggctctatggggatactttat  233


Query: 3181  ggtatgtgggaagggcccactcaccagtttctgatggtagctaatcgggaccagtccgac  3240
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 232   ggtatgtgggaagggcccactcaccagtttctgatggtagctaatcgggaccagtccgac  173


Query: 3241  cgcgcacagaggcgtctgtggcgttttaagagggtatggctttgcagctaccgtgttaag  3300
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 172   cgcgcacagaggcgtctgtggcgtttttaagagggtatggctttgcagctaccgtgttaag  113


Query: 3301  ttccctggtgttgctgaaataactgaagaacatccccctaagcgtcagcagcaagctgcc  3360
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 112   ttccctggtgttgctgaaataactgaagaacatccccctaagcgtcagcagcaagctgcc  53


Query: 3361  gccgctaaggccccggaaatcacgccctttacgtcgtaaacgccgtaaagcc  3412
             ||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 52    gccgctaaggccccggaaatcacgccctttacgtcgtaaacgccgtaaagcc  1




 Score =  252 bits (127), Expect = 4e-65
 Identities = 127/127 (100%)
 Strand = Plus / Plus


Query: 39181  ggctttacggcgtttacgacgtaaagggcgtgatttccggggccttagcggcggcagctt  39240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1      ggctttacggcgtttacgacgtaaagggcgtgatttccggggccttagcggcggcagctt  60


Query: 39241  gctgctgacgcttaggggggatgttcttcagttatttcagcaacaccagggaacttaacac  39300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 61     gctgctgacgcttagggggatgttcttcagttatttcagcaacaccagggaacttaacac  120


Query: 39301  ggtagct  39307
```

```
                  |||||||
Sbjct: 121    ggtagct 127




 Score =  147 bits (74), Expect = 2e-33
 Identities = 98/106 (92%)
 Strand = Plus / Plus


Query: 38166 atgccgcgtcagcggcatggaggcgcctgcagcagttgaatggagtactgcgtgcaaatg 38225
             |||||||||||||||||||||||||||| || | |||||||||||||| ||| | |||||
Sbjct: 2685  atgccgcgtcagcggcatggaggcgccagctgaagttgaatggagtaccgcgggtaaatg 2744


Query: 38226 gcgccgtcgcccggcgcagccggctgctgtttttgacaggttctgcc 38271
             |||||||  |||||||||||||||||||||||||||||||||||||||
Sbjct: 2745  gcgccgttacccggcgcagccggctgctgttttgacaggttctgcc 2790




 Score = 81.8 bits (41), Expect = 9e-14
 Identities = 41/41 (100%)
 Strand = Plus / Minus


Query: 24554 gccttaacgtacaataattttcgatatccaaactgacccct 24594
             |||||||||||||||||||||||||||||||||||||||||
Sbjct: 522   gccttaacgtacaataattttcgatatccaaactgacccct 482




 Score = 75.8 bits (38), Expect = 6e-12
 Identities = 47/50 (94%)
 Strand = Plus / Plus


Query: 22466 agggggcagtttggatatcgaaaattattgtacgttaaggttatttttg 22515
             |||||| |||||||||||||||||||||||||||||||||  |||||||||
Sbjct: 482   aggggtcagtttggatatcgaaaattattgtacgttaaggccattttttg 531




 Score = 67.9 bits (34), Expect = 1e-09
 Identities = 74/89 (83%), Gaps = 10/89 (11%)
 Strand = Plus / Plus


Query: 43705 gtccgcatttggcacaaagcagacattaaagactacagcat----------cggatgccg 43754
             ||||||| ||||||||||||||||||| |||||| ||||||||          |||||||||
Sbjct: 2631  gtccgctttggcacaaagcagacgttaaagtctacagcatgggaaacttccggatgccg 2690


Query: 43755 cgttagcggcatggaggcgccagatgaag 43783
             ||| |||||||||||||||||||| |||||
Sbjct: 2691  cgtcagcggcatggaggcgccagctgaag 2719
```

```
 Score = 61.9 bits (31), Expect = 9e-08
 Identities = 68/82 (82%), Gaps = 10/82 (12%)
 Strand = Plus / Minus


Query: 3566 cttcatctggcgcctccatgccgctaacgcggcatccg----------atgctgtagtct 3615
             |||||  |||||||||||||||||||| ||||||||||||           |||||||||| ||
Sbjct: 2719 cttcagctggcgcctccatgccgctgacgcggcatccggaagtttcccatgctgtagact 2660


Query: 3616 ttaatgtctgctttgtgccaaa 3637
             ||||  |||||||||||||||||
Sbjct: 2659 ttaacgtctgctttgtgccaaa 2638




 Score = 60.0 bits (30), Expect = 3e-07
 Identities = 36/38 (94%)
 Strand = Plus / Plus


Query: 38990 cggatgccgcgttagcggcatggaggcgccagatgaag 39027
              ||||||||||||| |||||||||||||||||||| |||||
Sbjct: 2682  cggatgccgcgtcagcggcatggaggcgccagctgaag 2719




 Score = 48.1 bits (24), Expect = 0.001
 Identities = 30/32 (93%)
 Strand = Plus / Plus


Query: 38958 tggcacaaagcagacattaaagactacagcat 38989
              ||||||||||||||| |||||| |||||||||
Sbjct: 2640  tggcacaaagcagacgttaaagtctacagcat 2671




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 21/21 (100%)
 Strand = Plus / Minus


Query: 15076 gatttattcaacaaagccgca 15096
              |||||||||||||||||||||
Sbjct: 45063 gatttattcaacaaagccgca 45043




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus


Query: 60385 cagtcggtctggcagaaca 60403
              |||||||||||||||||||
```

```
Sbjct: 33376 cagtcggtctggcagaaca 33394
```

```
 Score = 38.2 bits (19),  Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus
```

```
Query: 61115 tgttctgccagaccgactg 61133
             |||||||||||||||||||
Sbjct: 34106 tgttctgccagaccgactg 34124
```

```
>NODE_44_length_1057_cov_84.511828
          Length = 1057
```

```
 Score = 2095 bits (1057),  Expect = 0.0
 Identities = 1057/1057 (100%)
 Strand = Plus / Minus
```

```
Query: 14037 ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg 14096
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1057  ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg 998
```

```
Query: 14097 acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca 14156
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 997   acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca 938
```

```
Query: 14157 ataaagccctcatcaaccgtggctccataactttctggctggatgatgaagctattcagg 14216
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 937   ataaagccctcatcaaccgtggctccataactttctggctggatgatgaagctattcagg 878
```

```
Query: 14217 cctggtatgagtcagcaacaccttcttcacgaggcagacctcagcgctattctgaccttg 14276
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 877   cctggtatgagtcagcaacaccttcttcacgaggcagacctcagcgctattctgaccttg 818
```

```
Query: 14277 ccatcacgactgtgctggtcattaaacgcgtattcaggctgaccctgcgggctgcgcagg 14336
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 817   ccatcacgactgtgctggtcattaaacgcgtattcaggctgaccctgcgggctgcgcagg 758
```

```
Query: 14337 gctttattgattccattttttctctgatgaacgttccgctacgctgcccggattacagct 14396
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 757   gctttattgattccattttttctctgatgaacgttccgctacgctgcccggattacagct 698
```

```
Query: 14397 gtgtcagcaggcgggcaaagtcggttaatgtcagtttcaaaacgcccacccggggtgaaa 14456
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 697   gtgtcagcaggcgggcaaagtcggttaatgtcagtttcaaaacgcccacccggggtgaaa 638
```

```
Query: 14457 tcgcacacctggtaattgattccaccgggctgaaggtcttcggtgaaggcgagtggaaag 14516
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 637   tcgcacacctggtaattgattccaccgggctgaaggtcttcggtgaaggcgagtggaaag 578
```

```
Query: 14517 tcaaaaagcatggccaggaacgccgccgtatctggcgtaagctgcatctcgccgttgaca 14576
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Sbjct: 577   tcaaaaagcatggccaggaacgccgccgtatctggcgtaagctgcatctcgccgttgaca 518


Query: 14577 gtaaaacacatgaaatcatctgcgctgacctgtcgctgaacaacgttacggactcagagg 14636
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 517   gtaaaacacatgaaatcatctgcgctgacctgtcgctgaacaacgttacggactcagagg 458


Query: 14637 ccttccccgggttaatccggcaaacccaccggaaaatcaggtcagccgccgccgatggcg 14696
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 457   ccttccccgggttaatccggcaaacccaccggaaaatcaggtcagccgccgccgatggcg 398


Query: 14697 cttacgatacccggctatgtcacgatgaactgcggcgtaagaaaatcagcgcgcttatcc 14756
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 397   cttacgatacccggctatgtcacgatgaactgcggcgtaagaaaatcagcgcgcttatcc 338


Query: 14757 ctccccgaaaaggtgcgggttactggcccggtgaatatgcagaccgtaaccgtgcagtgg 14816
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 337   ctccccgaaaaggtgcgggttactggcccggtgaatatgcagaccgtaaccgtgcagtgg 278


Query: 14817 ctaatcagcgaatgaccgggagtaatgcgcggtggaaatggacaacagattacaaccgtc 14876
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 277   ctaatcagcgaatgaccgggagtaatgcgcggtggaaatggacaacagattacaaccgtc 218


Query: 14877 gctcgatagcggaaacggcgatgtaccgggtaaaacagctgttcgggggttcactgacgc 14936
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 217   gctcgatagcggaaacggcgatgtaccgggtaaaacagctgttcgggggttcactgacgc 158


Query: 14937 tgcgtgactacgatggtcaggttgcggaggctatggccctggtacgagcgctgaacaaaa 14996
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 157   tgcgtgactacgatggtcaggttgcggaggctatggccctggtacgagcgctgaacaaaa 98


Query: 14997 tgacgaaagcaggtatgcctgaaagcgtgcgtattgcctgaaaacacaacccgctacggg 15056
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 97    tgacgaaagcaggtatgcctgaaagcgtgcgtattgcctgaaaacacaacccgctacggg 38


Query: 15057 ggagacttacccgaaatctgatttattcaacaaagcc 15093
             |||||||||||||||||||||||||||||||||||||
Sbjct: 37    ggagacttacccgaaatctgatttattcaacaaagcc 1




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 14037 ggctttgttgaataaatc 14054
             ||||||||||||||||||
Sbjct: 1     ggctttgttgaataaatc 18




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus
```

```
Query: 15076  gatttattcaacaaagcc 15093
              ||||||||||||||||||
Sbjct: 1040   gatttattcaacaaagcc 1057




>NODE_23_length_71673_cov_15.369161
           Length = 71673

 Score = 1086 bits (548), Expect = 0.0
 Identities = 557/560 (99%)
 Strand = Plus / Minus


Query: 38409  tgagcgaggagcggacgttcgcggtagcgcaacaaagatgaatatttgaatcagatagtt 38468
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 47619  tgagcgaggagcggacgttcgcggtagcgcaacaaagatgaatatttgaatcagatagtt 47560


Query: 38469  catattaaacggaaataggttacttcctctaaacgtatcagagtaacaaaggctgaaaat 38528
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 47559  catattaaacggaaataggttacttcctctaaacgtatcagagtaacaaaggctgaaaat 47500


Query: 38529  ggcaaagcttgaagaattaaaaaacatttatcccggtgcactggcatggaaatttggcga 38588
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 47499  ggcaaagcttgaagaattaaaaaacatttatcccggtgcactggcatggaaatttggcga 47440


Query: 38589  cagcccagaacttgctgacgaactcgtacaactggttttgagtgggagtaaaacagcgac 38648
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 47439  cagcccagaacttgctgacgaactcgtacaactggttttgagtgggagtaaaacagcgac 47380


Query: 38649  atgctcttcgatagcatcttttcaccatgaacatgaacgaggcgaagctccctgcgttgg 38708
              ||||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Sbjct: 47379  atgctcttcgatagcatcttttcaccatgaacatgagcgaggcgaagctccctgcgttgg 47320


Query: 38709  aagttataatatcattcttaacggagccgggcagccaatgtgcgtgatcagaactctcag 38768
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 47319  aagttataatatcattcttaacggagccgggcagccaatgtgcgtgatcagaactctcag 47260


Query: 38769  gatgcaagttatccgcttcaatgaaatgacgagtgaacttgccagtaaggaaggtgaagg 38828
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 47259  gatgcaagttatccgcttcaatgaaatgacgagtgaacttgccagtaaggaaggtgaagg 47200


Query: 38829  tgatttaagtctggagtattggaatgaaggtcataagcgttatttttgagcgtgaaggcac 38888
              |||||||||||||||||||||||||||||||||||||| |||||||||||||||||||||
Sbjct: 47199  tgatttaagtctggagtattggaatgaaggtcataagcattattttgagcgtgaaggcac 47140


Query: 38889  ttattctgaagaaatggaacttatatttgaggaatttgaacttacagagattttgtaact 38948
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 47139  ttattctgaagaaatggaacttatatttgaggaatttgaacttacagagattttgtaact 47080


Query: 38949  gtcagctactggcacaaagc 38968
              ||||||||||||||||| ||||
Sbjct: 47079  gtcagctactggcactaagc 47060
```

```
Score =  819 bits (413), Expect = 0.0
Identities = 842/985 (85%)
Strand = Plus / Minus


Query: 35197  ccggtctctgggtccctcgtaagcaacgtgcgccaaaaattcagcagccacgctatcgcc  35256
              ||||  |||||||| ||  || ||  || |||||||||||||||||||||||||||||||||
Sbjct: 48731  ccgggctctgggttccccgcaagcaacgtgcgccaaaaattcagcagccacgctatcgcc  48672


Query: 35257  gggcctgttgtggcgaactgatacagatagatggctgtgaccaccattggttcgagaacc  35316
              ||||  || || ||||||||||| |||||| ||||| || || |||||  || ||||||||
Sbjct: 48671  gggcttgctgcggcgaactgatccagattgatggttgcgaccatcactggttcgagaacc  48612


Query: 35317  gtgctccagcctgtaccgtgctggtttacgttgatgatgcaacgagccgactgatgcagc  35376
              |||| || |||||||| | ||  ||||| |||||||||||| ||||||| |||||||| |
Sbjct: 48611  gtgcgcctgcctgtactgccctggtctacgttgatgatgcgacgagccgcctgatgcaac  48552


Query: 35377  tccgctttgtaaaatcggaatcaacattcacctattttgaggccacacgaggctacctgg  35436
              |||| || || ||||||||||| ||  |||||||||||| ||||| || ||||| ||||
Sbjct: 48551  tccgtttcgtgaaatcggaatcgactttcacctattttgaagccacgcggggctatctgg  48492


Query: 35437  aaaaacatggtaaaccgctggcgttatacagcgacaaagccagtgtattcagaataaaca  35496
              | || ||||| ||||| |||||| | |||||||| ||||||||| || ||||||| ||||
Sbjct: 48491  agaagcatggcaaacccctggcgctgtacagcgataaagccagcgtcttcagaatcaaca  48432


Query: 35497  acaaaaatgccactggtggcgatggctttacccagtttgggcgtgcgatgcatgaactga  35556
              | ||||| || |||||||||||||||| || |||||||||| |||||||||| |||||||
Sbjct: 48431  ataaaaacgctaccggtggcgatggttatacccagtttggccgtgcgatgcacgaactga  48372


Query: 35557  atatccagactatctgcacgaataccagctctgccaaaggccgcgtggaacgcgctcatc  35616
              | |||||||||||||| | |||||||||||| |||||||||||| ||||||||| || |||
Sbjct: 48371  acatccagactatctgcgccaataccagctcagccaaaggccgtgtggaacgggcccatc  48312


Query: 35617  tgacgcttcaggaccgactggtaaaagaactccggcttaggggaatttcttctgttgacg  35676
              |||||||||||| | |||||||||| || ||||||||| ||||| ||||| ||| || |
Sbjct: 48311  tgacgcttcaggatcgcctggtaaaggagctccggctcaggggcatttcctcagtggatg  48252


Query: 35677  cagccaatgagtatgctgatgagtttatggatgattataaccggcgctttgccaaagctc  35736
              |||||||||| | ||||||||||||||||| |||| ||||||||||||||| |||||| |
Sbjct: 48251  cagccaatgattttgctgatgagtttatgaccgattacaaccggcgctttggcaaagcac  48192


Query: 35737  ccctacatgactttgatgtgcatcggccacttgaacataatgatgatctggctgcctttt  35796
              |||  ||||||||||||||| || |||||||||||| | |||||||||||| || || ||
Sbjct: 48191  cccggcatgactttgatgttcaccggccacttgaaactgatgatgatctgaccgcatttt  48132


Query: 35797  tcacatggcgggaaccgcgccgcgtttcgaaatctctgacggttcagtatgacaaagtgc  35856
              ||||||||||||||||||||||| ||||| ||| ||||||||| |||||||||||||||||
Sbjct: 48131  tcacatggcgggaaccgcgccgtgtttcaaaatccctgacggtgcagtatgacaaagtgc  48072


Query: 35857  tctatcttattgaagacagtgaaataagtcgcaaagcaatcgggaaatatatagaggtct  35916
              |||||| | |||||||| || ||| ||| || || |  || || || || || ||||||||
Sbjct: 48071  tctatctgattgaagacaatgagttaagccgaagggctattggcaagtacattgaggtct  48012


Query: 35917  ggcactatccggatggcctaaaagaactcaggcttaacggcgtagctcttccctactcca  35976
              ||||  || |||||||||| |||||||| ||||| ||| |||  || |  |||||||||||
Sbjct: 48011  ggcattacccggatggccggaaagagctccggctaaacggggttgtccttccctactcca  47952
```

```
Query: 35977  cttatgatcgcctgtcggaaatcgaccagggagctatcgtggacaacaagcggctcggac 36036
               | |||||||||||    |||||||||||||||| ||||||||||||||||||| ||||| |
Sbjct: 47951  cctatgatcgccttcaggaaatcgaccaggggggctatcgtggacaacaagcgcctcgggc 47892


Query: 36037  gtacactggaatatatcaaactggttcaggacaaacgcgacaataaccgttctcaggcaa 36096
               ||||||| |||| ||||||||||| | |||||||||||||||||||||||||| |||||
Sbjct: 47891  gtacacttgaatttatcaaactgatacaggacaaacgcgacaataaccgttcacaggctc 47832


Query: 36097  tacctgctggcgatgggccttcacggcggcgcaggaaaccaactgataagaaatcccagc 36156
               | |||||| || |||||| || || || || |||||||||| || || ||||||||||||
Sbjct: 47831  tccctgccggagatggcccctcgcgccgaagcaggaaacccacagagaagaaatcccagc 47772


Query: 36157  gatcactgaacggcgacgatatgct 36181
               |||| ||| |||  |||||||||||
Sbjct: 47771  gatctctggacgaagacgatatgct 47747




 Score =  101 bits (51), Expect = 1e-19
 Identities = 72/78 (92%), Gaps = 2/78 (2%)
 Strand = Plus / Minus


Query: 34737  ataaaacgcattaagcgtagttgcactgtagtagcaaagttgtaatgtccgccttgggct 34796
               ||||||||||||||||||| ||||||| |||||||||||||||||||||||||  ||||||
Sbjct: 11836  ataaacgcattaagcgaagttgcagtgtagtagcaaagttgtaatgtccgctctgggct 11777


Query: 34797  aag--ttaagatgtccgt 34812
               |||   ||||||||||||
Sbjct: 11776  aagtattaagatgtccgt 11759




 Score = 85.7 bits (43), Expect = 6e-15
 Identities = 64/71 (90%)
 Strand = Plus / Plus


Query: 3326   aagaacatcccccctaagcgtcagcagcaagctgccgccgctaaggccccggaaatcacgc 3385
               |||||||||||| ||||||||||| ||||||||||| |||||||||||| ||||||||||||
Sbjct: 22670  aagaacatccccttaagcgtcaacagcaagctgctgccgctaaggctccggaaatcacat 22729


Query: 3386   cctttacgtcg 3396
               | |||||||||
Sbjct: 22730  cttttacgtcg 22740




 Score = 85.7 bits (43), Expect = 6e-15
 Identities = 64/71 (90%)
 Strand = Plus / Minus


Query: 39197  cgacgtaaagggcgtgatttccggggccttagcggcggcagcttgctgctgacgcttagg 39256
```

```
              ||||||||| |    |||||||||||| ||||||||||| ||||||||||| ||||||||||| |
Sbjct: 22740  cgacgtaaaagatgtgatttccggagccttagcggcagcagcttgctgttgacgcttaag 22681


Query: 39257  gggatgttctt 39267
              |||||||||||
Sbjct: 22680  gggatgttctt 22670




 Score = 77.8 bits (39), Expect = 1e-12
 Identities = 64/71 (90%), Gaps = 1/71 (1%)
 Strand = Plus / Minus


Query: 34839  atgacggctcatgcagcggagttttttacattggatgaagttaaccgactcaaaatcatt 34898
              |||||||| ||||| |||||| ||||| || ||||||||||||||||||||||||||| |||
Sbjct: 11730  atgacggatcatgtagcggaatttt-actttggatgaagttaaccgactcaaaattatt 11672


Query: 34899  caggatgttgt 34909
              |||||| ||||
Sbjct: 11671  caggatattgt 11661




 Score = 58.0 bits (29), Expect = 1e-06
 Identities = 35/37 (94%)
 Strand = Plus / Minus


Query: 40860  gtcccccttgattaaggatagcgttgcatcgacccat 40896
              |||| |||||||||||||||||||||||||| |||||
Sbjct: 22971  gtcctccttgattaaggatagcgttgcatcgccccat 22935




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 24/25 (96%)
 Strand = Plus / Plus


Query: 2906  aattttcgatatccaaactgacccc 2930
             ||||||| |||||||||||||||||
Sbjct: 849   aattttcaatatccaaactgacccc 873




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 24/25 (96%)
 Strand = Plus / Plus


Query: 24569  aattttcgatatccaaactgacccc 24593
              ||||||| |||||||||||||||||
Sbjct: 849    aattttcaatatccaaactgacccc 873
```

```
 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus


Query: 2819   tccgctcctcgctcaaagc 2837
              |||||||||||||||||||
Sbjct: 47605  tccgctcctcgctcaaagc 47623




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Minus


Query: 34730  atttaacataaaacgcatt 34748
              |||||||||||||||||||
Sbjct: 49996  atttaacataaaacgcatt 49978




>NODE_27_length_62334_cov_15.396226
         Length = 62334

 Score =  771 bits (389), Expect = 0.0
 Identities = 617/693 (89%)
 Strand = Plus / Plus


Query: 22927  gtacaccctgacgccataatcaaaacgtgatggagcacgatgaatgagataacctatatg 22986
              ||||||||||| |||| || |||||||||| || |||||||||||| ||||||||||||||
Sbjct: 23184  gtacaccctgatgccacaaacaaaacgtgacggcacacgatgaatgacataacctatatg 23243


Query: 22987  ctatagaataaatacaataacctaaatgcgataatatggtggaaaaatgttcatcagagc 23046
              | ||| |||||| ||||||| |||||||||| ||| | ||||||||||||||||||||||
Sbjct: 23244  cgatacgataaatgcaataacttaaatgcgataacgtggcgaaaaatgttcatcagagc 23303


Query: 23047  ttatttgagggcatcgacggaagatcagttcgccgaccgggcaaaagagatgctggagca 23106
              |||||| || |||||||||||||||||||||||| || |||||||||||||||||||||||
Sbjct: 23304  ttatttaagagcatcgacggaagatcagttcgcggatcgggcaaaagagatgctggagca 23363


Query: 23107  gttcgttcaggaacgagggcataaaatcgccagctattaccgggagaatatcagcgggac 23166
              |||||||||| | || || ||||||||| ||||| || ||||||||||||| ||||||| ||
Sbjct: 23364  gttcgttcagcagcggggacataaaatagccagttactaccgggagaacatcagcggtac 23423


Query: 23167  aaaacttgaccgcccggagctgggacgcttgctgacggacagtcaccgtaatgatatttt 23226
              |||||||| |||||||| || || ||||| |||| |||||||||||||| ||||||||||||
Sbjct: 23424  aaaacttgatcgcccggaactaggtcgcttactgatggacagtcaccgcaatgatatttt 23483


Query: 23227  gctggtcgagcagatagaccggctgacccgcctgagcaacagcgactggatgacgctgaa 23286
              ||||||||||||| || ||||| ||||||||| ||||| |||||||||||||||||||||||
Sbjct: 23484  gctggtcgagcaaattgaccgcctgacccgtctgagtaacagcgactggatgacgctgaa 23543


Query: 23287  aaagcagatcgaacaacacgaactgcggattgtcagccttgatgtccccacatcatggca 23346
              |||||||| |||||||||||| ||||||||||| ||||| |||||||||| ||||||||
```

```
Sbjct: 23544  aaagcagatagaacaacacgagctgcggattgttagcctggatgtccccacctcatggca  23603


Query: 23347  ggcactatcagataaagacccttcgcaggctgatccgataacccgcgccgtgataagcgc  23406
              ||| || |||||||||||| |||||||||||||||| || ||||||||||||||| |||
Sbjct: 23604  ggcgctgtcagataaagaaccttcgcaggctgatccaatcacccgcgccgtgataaccgc  23663


Query: 23407  catcaacaatatgttgatcgacctgatggccgcaatgtcgcataaggactggctgagccg  23466
              ||||||| || ||| | ||||| |||||||||||| |||||||||||||||||| |||||
Sbjct: 23664  catcaataacatgcttatcgatctgatggccgcgatgtcgcataaggactggctaagccg  23723


Query: 23467  ccgccagcggcaaaagcagggaattgaacgggcgcatacactgggtaaataccggggtaa  23526
              |||||||| || || ||||||||||||||||||||||| |||||||||||| || || ||
Sbjct: 23724  ccgccagcgccagaaacagggaattgaacgggcgcatacgctgggtaaatatcgaggaaa  23783


Query: 23527  gcaggccgatcaggagcgacatcagaaagttctgtactatcgccaggtcaagaaactgag  23586
              |||||||||||||||||||||||||||||||||||||| |||||| | |||||| ||||
Sbjct: 23784  acaggccgatcaggagcgacatcagaaagttctgtactaccgccagattaagaaattgag  23843


Query: 23587  tatccgtgaaactgcagatgcaacaggatacag  23619
              ||| || ||||| |||||||||||| || |||||
Sbjct: 23844  tattcgcgaaaccgcagatgcaacgggctacag  23876




 Score =  252 bits (127), Expect = 4e-65
 Identities = 127/127 (100%)
 Strand = Plus / Minus


Query: 14967  ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc  15026
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 62334  ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc  62275


Query: 15027  gtattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaa  15086
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 62274  gtattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaa  62215


Query: 15087  caaagcc  15093
              |||||||
Sbjct: 62214  caaagcc  62208




 Score =  159 bits (80), Expect = 5e-37
 Identities = 95/100 (95%)
 Strand = Plus / Plus


Query: 40805  taattgccttctgctctggagtgtagttaatgcgagttcttcgtttcattgcaacgtccc  40864
              |||| |||||||||||||||| |||||||||| |||||||||||||||| ||||||||||
Sbjct: 25471  taatcgccttctgctctggcgtgtagttaatccgagttcttcgtttcatggcaacgtccc  25530


Query: 40865  ccttgattaaggatagcgttgcatcgacccattgaactca  40904
              |||||||||||||||||||||||||||||| |||||||||
Sbjct: 25531  ccttgattaaggatagcgttgcatcgacccgttgaactca  25570
```

```
 Score =  121 bits (61), Expect = 1e-25
 Identities = 97/109 (88%)
 Strand = Plus / Plus


Query: 2823   ctcctcgctcaaagctgcctgtcaacgtgatcgatcgctcttaactcggcctggaagtac 2882
              |||||||||||||||||||||||||||||| || ||| | |||| | | ||| || |||||
Sbjct: 25061  ctcctcgctcaaagctgcctgtcaacgtggtcaatctcccttatcgcagccaggtagtac 25120


Query: 2883   aaaaaatggccttaacgtacaataattttcgatatccaaactgacccct 2931
              |||||||  ||||||||||||||| ||||||||||||||||||||||||||
Sbjct: 25121  aaaaaataaccttaacgtacaatgattttcgatatccaaactgacccct 25169




 Score = 85.7 bits (43), Expect = 6e-15
 Identities = 49/51 (96%)
 Strand = Plus / Minus


Query: 22465  tagggggcagtttggatatcgaaaattattgtacgttaaggttattttttg 22515
              |||||| ||||||||||||||||||||| ||||||||||||||||||||||||
Sbjct: 25170  taggggtcagtttggatatcgaaaatcattgtacgttaaggttattttttg 25120




 Score = 79.8 bits (40), Expect = 4e-13
 Identities = 49/52 (94%)
 Strand = Plus / Minus


Query: 32239  ggaaccataaatgcgttcaccgaatttactgcctgctgaaactgaattttcg 32290
              ||||||||||  |||||||||| |||||||||||||||||||||||||||||||
Sbjct: 542    ggaaccataagcgcgttcaccggatttactgcctgctgaaactgaattttcg 491




 Score = 73.8 bits (37), Expect = 2e-11
 Identities = 40/41 (97%)
 Strand = Plus / Plus


Query: 24555  ccttaacgtacaataattttcgatatccaaactgaccccta 24595
              |||||||||||||| |||||||||||||||||||||||||||
Sbjct: 25130  ccttaacgtacaatgattttcgatatccaaactgaccccta 25170




 Score = 56.0 bits (28), Expect = 5e-06
 Identities = 37/40 (92%)
 Strand = Plus / Minus
```

```
Query: 24556 cttaacgtacaataattttcgatatccaaactgacccocta 24595
             ||||||||||||| |||||| |||| |||||||||||||||||
Sbjct: 23071 cttaacgtacaaaaattccgatctccaaactgaccccta 23032


 Score = 54.0 bits (27), Expect = 2e-05
 Identities = 36/39 (92%)
 Strand = Plus / Minus


Query: 2893  cttaacgtacaataattttcgatatccaaactgacccct 2931
             ||||||||||||| ||||| |||| ||||||||||||||||
Sbjct: 23071 cttaacgtacaaaaattccgatctccaaactgaccccct 23033


 Score = 52.0 bits (26), Expect = 8e-05
 Identities = 35/38 (92%)
 Strand = Plus / Minus


Query: 24556 cttaacgtacaataattttcgatatccaaactgacccc 24593
             ||||||||||||| | ||| ||||||||||||||||||||
Sbjct: 20318 cttaacgtacaaaagtttccgatatccaaactgacccc 20281


 Score = 52.0 bits (26), Expect = 8e-05
 Identities = 35/38 (92%)
 Strand = Plus / Minus


Query: 2893  cttaacgtacaataattttcgatatccaaactgacccc 2930
             ||||||||||||| | ||| ||||||||||||||||||||
Sbjct: 20318 cttaacgtacaaaagtttccgatatccaaactgacccc 20281


 Score = 52.0 bits (26), Expect = 8e-05
 Identities = 35/38 (92%)
 Strand = Plus / Plus


Query: 2893  cttaacgtacaataattttcgatatccaaactgacccc 2930
             |||| ||||||||||||| || ||||||||||||||||||
Sbjct: 20497 cttaccgtacaataattctctatatccaaactgacccc 20534


 Score = 52.0 bits (26), Expect = 8e-05
 Identities = 35/38 (92%)
 Strand = Plus / Plus


Query: 24556 cttaacgtacaataattttcgatatccaaactgacccc 24593
```

```
                 ||||  |||||||||||||| ||  |||||||||||||||||
Sbjct: 20497 cttaccgtacaataattctctatatccaaactgacccc 20534
```

```
 Score = 50.1 bits (25), Expect = 3e-04
 Identities = 37/41 (90%)
 Strand = Plus / Plus
```

```
Query: 22464 ataggggggcagtttggatatcgaaaattattgtacgttaag 22504
                 |||||||| |||||||||| |||| ||||| |||||||||||
Sbjct: 23031 atagggggtcagtttggagatcggaaattttgtacgttaag 23071
```

```
 Score = 48.1 bits (24), Expect = 0.001
 Identities = 30/32 (93%)
 Strand = Plus / Plus
```

```
Query: 2900  tacaataattttcgatatccaaactgacccct 2931
                 |||||||||| || ||||||||||||||||||
Sbjct: 25169 tacaataattctctatatccaaactgacccct 25200
```

```
 Score = 48.1 bits (24), Expect = 0.001
 Identities = 30/32 (93%)
 Strand = Plus / Plus
```

```
Query: 24563 tacaataattttcgatatccaaactgacccct 24594
                 |||||||||| || ||||||||||||||||||
Sbjct: 25169 tacaataattctctatatccaaactgacccct 25200
```

```
 Score = 44.1 bits (22), Expect = 0.020
 Identities = 34/38 (89%)
 Strand = Plus / Plus
```

```
Query: 22467 gggggcagtttggatatcgaaaattattgtacgttaag 22504
                 |||| |||||||||||||| ||| | ||||||||||||
Sbjct: 20281 ggggtcagtttggatatcggaaacttttgtacgttaag 20318
```

```
 Score = 44.1 bits (22), Expect = 0.020
 Identities = 34/38 (89%)
 Strand = Plus / Minus
```

```
Query: 22467 gggggcagtttggatatcgaaaattattgtacgttaag 22504
                 |||| |||||||||| || ||||||||||| ||||
```

```
Sbjct: 20534 ggggtcagtttggatatagagaattattgtacggtaag 20497
```

```
 Score = 42.1 bits (21), Expect = 0.079
 Identities = 21/21 (100%)
 Strand = Plus / Plus
```

```
Query: 36936 catctgaacttagctttgaca 36956
              |||||||||||||||||||||
Sbjct: 26546 catctgaacttagctttgaca 26566
```

```
 Score = 40.1 bits (20), Expect = 0.31
 Identities = 29/32 (90%)
 Strand = Plus / Minus
```

```
Query: 22466 aggggggcagtttggatatcgaaaattattgta 22497
              ||||| ||||||||||||| || |||||||||||
Sbjct: 25200 aggggtcagtttggatatagagaattattgta 25169
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus
```

```
Query: 14037 ggctttgttgaataaatc 14054
              ||||||||||||||||||
Sbjct: 62208 ggctttgttgaataaatc 62225
```

```
>NODE_1_length_566821_cov_8.393009
          Length = 566821
```

```
 Score =  254 bits (128), Expect = 1e-65
 Identities = 128/128 (100%)
 Strand = Plus / Plus
```

```
Query: 14036  cggctttgttgaataaatcgaactttttgctgagttgaaggatcagatcacgcatcttccc 14095
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 566694 cggctttgttgaataaatcgaactttttgctgagttgaaggatcagatcacgcatcttccc 566753
```

```
Query: 14096  gacaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctac 14155
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 566754 gacaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctac 566813
```

```
Query: 14156  aataaagc 14163
              ||||||||
Sbjct: 566814 aataaagc 566821
```

```
 Score =  133 bits (67), Expect = 3e-29
 Identities = 154/183 (84%)
 Strand = Plus / Plus


Query: 37810  cttccactcgaaccagccgtcagcaaaacaaagcgcccggccatgctgccataacggttt 37869
              ||||||| || ||||||||| || ||||||||| | ||| || || ||||||||| |  |||||
Sbjct: 261454 cttccattcaaaccagccatcggcaaaacatatcgcacgaccgtgctgccacagaggttt 261513


Query: 37870  aaacattctgctcgatgcggctgtttccaccctggcattaatcaacggcgctttatccca 37929
              ||||||||||||    || || || || |||||||||||||||||||||||| | |||||||||
Sbjct: 261514 aaacattctgctgttggctgcggtctcaaccctggcattaatcaacggtggtttatccca 261573


Query: 37930  ccacccaggcgcataccccagtgaaccggatcgaggtgcagctgttcatcacgttcgct 37989
              |||| || || || || |||||||||||||||||||||||||||||||||||| || |||||||||
Sbjct: 261574 ccaaccgggtgcgtaaccccagtgaaccggatcgaggtgcagctgttcgtctcgttcgct 261633


Query: 37990  cag 37992
              |||
Sbjct: 261634 cag 261636




 Score =  101 bits (51), Expect = 1e-19
 Identities = 129/155 (83%)
 Strand = Plus / Plus


Query: 18924  atgctgcgcgaaaccgggttgacgttcggacgctggcgtcagcaattgcaactgataatt 18983
              |||||||| || ||||| |||| ||||| ||||||||| |||||  ||||  |||| |||
Sbjct: 72067  atgctgcgggagaccggcctgaccttcgggcgctggcgccagcagctgcatttgattatt 72126


Query: 18984  gctctccgggaactggctagcggcgtttcggtccagaatgttgcagctaatctggggtat 19043
              || || | ||| ||||| ||||||||||||| || || || || ||||| |||||||||
Sbjct: 72127  gccctgcaggagctggccagcggcgtttcggtacaaaacgtggcggctaagctggggtat 72186


Query: 19044  gaatcggttaatgcgtttatcaccatgttcaaaaa 19078
              ||||||||| ||||| ||||| ||||||||||||||
Sbjct: 72187  gaatcggtaaatgcctttattaccatgttcaaaaa 72221




 Score = 91.7 bits (46), Expect = 1e-16
 Identities = 85/98 (86%)
 Strand = Plus / Plus


Query: 16767  cccagctcgcacaaaataggcagcgtcagtgtgatccccatcgccataaaagtagtgggc 16826
              ||||| ||||||||| || |||||||||||| ||||| |||||||||||||| || || |||
Sbjct: 69903  cccagttcgcacaatatcggcagcgtcagggtgatgcccatcgccataaaggtggtcggc 69962


Query: 16827  ggccgtgcctggagcgatccggcaagcagatataccgg 16864
              ||||| |||||| ||||| |||||||| |||||
Sbjct: 69963  ggccgcgcctgcagcgaaccggccagcagatagaccgg 70000
```

```
 Score = 87.7 bits (44), Expect = 1e-15
 Identities = 143/176 (81%)
 Strand = Plus / Plus


Query: 15779  ccagtgcgggtcaatggaatagagcacatcgccccgattaacccactgattatcgcggac  15838
              ||||  |||| || |||||||||||||||| |||||||| ||||||||| || ||    ||
Sbjct: 68909  ccagcgcggatcgatggaatagagcacatctccccgattgacccactggttgtcttttac  68968


Query: 15839  ggccacattcagaaccggtccagagacatccggcgcaatctggaccacatccgcacgaac  15898
              |||||  |       ||||||||| |||||||| || || ||||| ||||| || || || ||
Sbjct: 68969  cgccacgctggccaccggtcccgagacatcgggagcgatctgcaccacgtcggcccgtac  69028


Query: 15899  ccgaccatcgcgggtccagggagtttgcacataatgtttccagagaataaaagcca  15954
              ||||||||||||||||||||||| ||||||| | |  ||||||||||||||| |||||||
Sbjct: 69029  ccgaccatcgcgggtccagggcgtttgcgcctcctgtttccagagaatgaaagcca  69084




 Score = 63.9 bits (32), Expect = 2e-08
 Identities = 89/108 (82%)
 Strand = Plus / Plus


Query: 15248  acgctgcgcgagccgcacccagctaaaggttggctcgacattaggcaggccaagcccccc  15307
              ||||||||| ||||||||||||||| |||||| |||||||| |  |||||||||| ||  | ||
Sbjct: 68378  acgctgcgccagccgcacccagctgaaggtcggctcgacctccggcaggcccagggcacc  68437


Query: 15308  ggtctcgtcattgttatcatctattccgcgcccgatactctcaacatg  15355
              ||||||| ||||||| ||||   | || |||  | |||||||||||| |||||
Sbjct: 68438  ggtctcatcattggtatcgccgatcccgtgtccgatactctcgacatg  68485




 Score = 63.9 bits (32), Expect = 2e-08
 Identities = 144/180 (80%), Gaps = 1/180 (0%)
 Strand = Plus / Plus


Query: 18299  aaatactctattctgtcaaaaaatacctaaatgttgccaatc-tatgttaccgccactcg  18357
              |||||||||||||||||||||||||||||||| ||| | |||||||| ||||  | | || | |
Sbjct: 71441  aaatactctattctgtcaaaaaatacctgaatctggccaatcgtatgccatcaccttttg  71500


Query: 18358  ccaatacactgtttgatccagatgccatcccctgccccgcagtcgcgcgtcatttggatt  18417
              ||||||| ||||  |||| ||||| || |||       ||||||| || ||||| ||||| | ||||
Sbjct: 71501  ccaatacgctgtacgatccggacgccgcgtcctgcccggccgtcgcctgtcatcttgatt  71560


Query: 18418  ttgtcgattacgcggccgaagtacctgtgcatacgcaccgcaaagggcaattgattattg  18477
              ||||||| || |  || ||||| || |||||||| || ||||||||||| ||||||||||||
Sbjct: 71561  ttgtcgagtatgaagcggaagtgccggtgcatacccatcgcaaagggcagttgattattg  71620
```

```
 Score = 48.1 bits (24), Expect = 0.001
 Identities = 30/32 (93%)
 Strand = Plus / Minus


Query: 45350 gcaatcatcaaatgcagctgctgacgccagcg 45381
             ||||| ||||||||||||||||| |||||||||
Sbjct: 72128 gcaataatcaaatgcagctgctggcgccagcg 72097




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 36/41 (87%)
 Strand = Plus / Minus


Query: 47086 gcgctgtcaggcatggcgcagagtatcggttatctgatggc 47126
             |||||||||||| |||||||||||  |||| ||||||| ||||
Sbjct: 89294 gcgctgtcagggatggcgcagagcgtcggctatctgctggc 89254




 Score = 40.1 bits (20), Expect = 0.31
 Identities = 23/24 (95%)
 Strand = Plus / Plus


Query: 21352  tgccaatgccggtatcgcgtatgc 21375
              |||| ||||||||||||||||||||
Sbjct: 305110 tgccgatgccggtatcgcgtatgc 305133




 Score = 40.1 bits (20), Expect = 0.31
 Identities = 32/36 (88%)
 Strand = Plus / Minus


Query: 10138  acgccgttgcggatatcccattcaagcggtcggcca 10173
              ||||||||| || ||||||||| || ||||||||||||
Sbjct: 378186 acgccgttacgaatatcccactccagcggtcggcca 378151




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 28/31 (90%)
 Strand = Plus / Plus


Query: 15429 gtctcttcaaaatagccaaccacccaaaaac 15459
             ||||||||||||| || ||||||||| ||||
Sbjct: 68559 gtctcttcaaaataccctaccacccagaaac 68589
```

```
 Score = 38.2 bits (19), Expect = 1.2
 Identities = 22/23 (95%)
 Strand = Plus / Plus


Query: 56142  ccaaactgccatggaaaatagcg 56164
               ||||||||||| |||||||||||
Sbjct: 340561 ccaaactgccagggaaaatagcg 340583




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus


Query: 56798  gtgactcagcgcatgctga 56816
              |||||||||||||||||||
Sbjct: 467070 gtgactcagcgcatgctga 467088




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Minus


Query: 15076  gatttattcaacaaagccg 15094
              |||||||||||||||||||
Sbjct: 566712 gatttattcaacaaagccg 566694




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 36940 tgaacttagctttgacat 36957
             ||||||||||||||||||
Sbjct: 27670 tgaacttagctttgacat 27653




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 33/38 (86%)
 Strand = Plus / Plus


Query: 15498 gtggcatagtcaccagggcgaagccgcaaatgtgtgac 15535
             |||||||||| || ||||| ||||||| ||| |||||
Sbjct: 68628 gtggcatagtcgcccgggcgtagccgcagatgggtgac 68665




 Score = 36.2 bits (18), Expect = 4.9
```

```
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 32383  tcatttgttcgacatcac 32400
              ||||||||||||||||||
Sbjct: 121280 tcatttgttcgacatcac 121297




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 41821  tacagtctgccgctggca 41838
              ||||||||||||||||||
Sbjct: 227557 tacagtctgccgctggca 227574




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 48/58 (82%)
 Strand = Plus / Plus


Query: 37707  cttcgtcaccgcgctcaaagggtatactgccgatcgcggtcataaatattggctggcc 37764
              ||||||| |||||||||||| || |   || ||||||||| | ||| || ||||||||||
Sbjct: 261351 cttcgtcgccgcgctcaaaaggcacgctaccgatcgccgccatgaagattggctggcc 261408




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 18625  ccgccgcgctgccggagc 18642
              ||||||||||||||||||
Sbjct: 344229 ccgccgcgctgccggagc 344212




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 44609  cgcagctgctgcgcgagg 44626
              ||||||||||||||||||
Sbjct: 433068 cgcagctgctgcgcgagg 433085




>NODE_28_length_56662_cov_9.648147
         Length = 56662
```

```
 Score =  252 bits (127), Expect = 4e-65
 Identities = 127/127 (100%)
 Strand = Plus / Plus


Query: 14037  ggctttgttgaataaatcgaactttttgctgagttgaaggatcagatcacgcatcttcccg  14096
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 56536  ggctttgttgaataaatcgaactttttgctgagttgaaggatcagatcacgcatcttcccg  56595


Query: 14097  acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  14156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 56596  acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  56655


Query: 14157  ataaagc  14163
              |||||||
Sbjct: 56656  ataaagc  56662




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 15076  gatttattcaacaaagcc  15093
              ||||||||||||||||||
Sbjct: 56553  gatttattcaacaaagcc  56536




>NODE_25_length_69837_cov_10.709066
          Length = 69837

 Score =  252 bits (127), Expect = 4e-65
 Identities = 127/127 (100%)
 Strand = Plus / Plus


Query: 14037  ggctttgttgaataaatcgaactttttgctgagttgaaggatcagatcacgcatcttcccg  14096
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 69711  ggctttgttgaataaatcgaactttttgctgagttgaaggatcagatcacgcatcttcccg  69770


Query: 14097  acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  14156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 69771  acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  69830


Query: 14157  ataaagc  14163
              |||||||
Sbjct: 69831  ataaagc  69837




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 35691  gctgatgagtttatggat  35708
```

```
                        ||||||||||||||||||
Sbjct: 8874  gctgatgagtttatggat 8891



 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 10230 atcgaggatctcctgcgg 10247
             ||||||||||||||||||
Sbjct: 30321 atcgaggatctcctgcgg 30304



 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 15076 gatttattcaacaaagcc 15093
             ||||||||||||||||||
Sbjct: 69728 gatttattcaacaaagcc 69711



>NODE_20_length_85165_cov_8.967991
         Length = 85165

 Score =  252 bits (127), Expect = 4e-65
 Identities = 127/127 (100%)
 Strand = Plus / Plus


Query: 14967 ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc 15026
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1     ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc 60


Query: 15027 gtattgcctgaaaacacaacccgctacgggggagacttacccgaaatctgatttattcaa 15086
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 61    gtattgcctgaaaacacaacccgctacgggggagacttacccgaaatctgatttattcaa 120


Query: 15087 caaagcc 15093
             |||||||
Sbjct: 121   caaagcc 127




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 14037 ggctttgttgaataaatc 14054
             ||||||||||||||||||
Sbjct: 127   ggctttgttgaataaatc 110
```

```
>NODE_13_length_165527_cov_10.023307
          Length = 165527

 Score =  252 bits (127), Expect = 4e-65
 Identities = 127/127 (100%)
 Strand = Plus / Minus


Query: 14967  ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc 15026
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 165527 ctatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgc 165468


Query: 15027  gtattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaa 15086
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 165467 gtattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaa 165408


Query: 15087  caaagcc 15093
              |||||||
Sbjct: 165407 caaagcc 165401




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 54249 agtctggcgggcggcctg 54266
             ||||||||||||||||||
Sbjct: 43454 agtctggcgggcggcctg 43471




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 14037  ggctttgttgaataaatc 14054
              ||||||||||||||||||
Sbjct: 165401 ggctttgttgaataaatc 165418




>NODE_5_length_361067_cov_9.330210
          Length = 361067

 Score =  252 bits (127), Expect = 4e-65
 Identities = 127/127 (100%)
 Strand = Plus / Minus


Query: 14037 ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg 14096
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 127   ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg 68
```

```
Query: 14097  acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  14156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 67     acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  8


Query: 14157  ataaagc  14163
              |||||||
Sbjct: 7      ataaagc  1




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 15076  gatttattcaacaaagcc  15093
              ||||||||||||||||||
Sbjct: 110    gatttattcaacaaagcc  127




>NODE_46_length_1018_cov_16.254770
         Length = 1018

 Score =  250 bits (126), Expect = 2e-64
 Identities = 126/126 (100%)
 Strand = Plus / Minus


Query: 14037  ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg  14096
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 126    ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg  67


Query: 14097  acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  14156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 66     acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca  7


Query: 14157  ataaag  14162
              ||||||
Sbjct: 6      ataaag  1




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 15076  gatttattcaacaaagcc  15093
              ||||||||||||||||||
Sbjct: 109    gatttattcaacaaagcc  126




>NODE_35_length_27820_cov_67.851804
         Length = 27820
```

```
 Score =  250 bits (126), Expect = 2e-64
 Identities = 126/126 (100%)
 Strand = Plus / Plus


Query: 14968 tatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgcg 15027
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1     tatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgcg 60


Query: 15028 tattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaac 15087
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 61    tattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaac 120


Query: 15088 aaagcc 15093
              ||||||
Sbjct: 121   aaagcc 126




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 66/81 (81%)
 Strand = Plus / Plus


Query: 37958 ggatcgaggtgcagctgttcatcacgttcgctcagcagtaacaccttggttcctggggcg 38017
              ||||||||| |||| ||| || |||||||||||| || || ||  | || ||||| ||
Sbjct: 659   ggatcgagatgcaactgctcgtcacgttcgctcaggagcaaaactatagtccctggcgcc 718


Query: 38018 acgttgtagcgaccgattggt 38038
              ||||||||| || ||||||||||
Sbjct: 719   acgttgtaccggccgattggt 739




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 14037 ggctttgttgaataaatc 14054
              ||||||||||||||||||
Sbjct: 126   ggctttgttgaataaatc 109




>NODE_29_length_49941_cov_9.629522
         Length = 49941

 Score =  250 bits (126), Expect = 2e-64
 Identities = 126/126 (100%)
 Strand = Plus / Minus


Query: 14037 ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg 14096
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 126   ggctttgttgaataaatcgaacttttgctgagttgaaggatcagatcacgcatcttcccg 67


Query: 14097 acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca 14156
```

```
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 66   acaacgcagaccgttccgtggcaaagcaaaagttcaaaatcaccaactggcccacctaca 7
```

```
Query: 14157 ataaag 14162
             ||||||
Sbjct: 6     ataaag 1
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus
```

```
Query: 15076 gatttattcaacaaagcc 15093
             ||||||||||||||||||
Sbjct: 109   gatttattcaacaaagcc 126
```

>NODE_15_length_121110_cov_9.734285
        Length = 121110

```
 Score =  250 bits (126), Expect = 2e-64
 Identities = 126/126 (100%)
 Strand = Plus / Plus
```

```
Query: 14968 tatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgcg 15027
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 1     tatggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgcg 60
```

```
Query: 15028 tattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaac 15087
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 61    tattgcctgaaaacacaacccgctacggggggagacttacccgaaatctgatttattcaac 120
```

```
Query: 15088 aaagcc 15093
             ||||||
Sbjct: 121   aaagcc 126
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus
```

```
Query: 14037 ggctttgttgaataaatc 14054
             ||||||||||||||||||
Sbjct: 126   ggctttgttgaataaatc 109
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus
```

```
Query: 55422  tccccggtttaccggaga  55439
              ||||||||||||||||||
Sbjct: 40267  tccccggtttaccggaga  40284




>NODE_37_length_21672_cov_17.473938
         Length = 21672

 Score =  248 bits (125), Expect = 7e-64
 Identities = 125/125 (100%)
 Strand = Plus / Minus


Query: 14969  atggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgcgt  15028
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 21672  atggccctggtacgagcgctgaacaaaatgacgaaagcaggtatgcctgaaagcgtgcgt  21613


Query: 15029  attgcctgaaaacacaacccgctacgggggagacttacccgaaatctgatttattcaaca  15088
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 21612  attgcctgaaaacacaacccgctacgggggagacttacccgaaatctgatttattcaaca  21553


Query: 15089  aagcc  15093
              |||||
Sbjct: 21552  aagcc  21548




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 14037  ggctttgttgaataaatc  14054
              ||||||||||||||||||
Sbjct: 21548  ggctttgttgaataaatc  21565




>NODE_3_length_470369_cov_9.494788
         Length = 470369

 Score =  190 bits (96), Expect = 1e-46
 Identities = 189/220 (85%)
 Strand = Plus / Minus


Query: 52261   agaatttcccggcactgcgccagatattgcagaccttccggagtaaggctgacacgtctt  52320
               |||||||||||||||||||||||||||| ||||  ||||||||| |||||||| || || |||
Sbjct: 428664  agaatttcccggcactgcgccagatactgcatcccttccggggtaaggctcacccgcctt  428605


Query: 52321   gtggtccggttcagcagacgcacctgcagatatttctccaggttttttgatggtgctggta  52380
               ||||||||||||||||||| ||||||| ||| |||||||| ||||||||| ||||| |||||
Sbjct: 428604  gtggtccggttcagcagccgcaccttcaggtatttctcaaggtttttaatggtactggtg  428545


Query: 52381   acagtagaagaaggcagggaaagtgtttccgcggcccggacaaagcttccggcctcagcc  52440
               ||||| || | ||||||||||||| |||||||||| || || ||||| || ||||| ||
Sbjct: 428544  acagtggaggcaggcagggaaagggtttccgcggcacgcacgaagctccctgcctccgcg  428485
```

```
Query: 52441   acccttataaaaacctgcatagcctgaatacgatccacct 52480
               ||  |   ||||| | ||||||||||||| |||||||||||
Sbjct: 428484  acgcgcataaacatctgcatagcctggatacgatccacct 428445
```

```
 Score = 69.9 bits (35), Expect = 3e-10
 Identities = 116/143 (81%)
 Strand = Plus / Minus
```

```
Query: 52051   atcacgcagtctcaccctcctgaaccaggtcaacctgccggtcgctgacgccgatcatc 52110
               |||||||||||| || || ||||||| ||| || ||||| || ||||||||||||||||
Sbjct: 428874  atcacgcagtcgacgccttcctgaatcagatcgacctggcgatcgctgacgccgatcatc 428815
```

```
Query: 52111   aggtaaatgtcaggataacggctgtagaactctttcaggtttggcatgacgatgaagtgc 52170
               ||||| || || |||||| || | ||| || ||    ||| |  ||||||||||||| |||
Sbjct: 428814  aggtagatatcgggatagcgccggtaaaagtccggcagatgcggcatgacgatgaaatgc 428755
```

```
Query: 52171   gctataccgccgggcatatcaac 52193
               || || ||  |||||||||||||
Sbjct: 428754  gcgatgcccgcgggcatatcaac 428732
```

```
 Score = 52.0 bits (26), Expect = 8e-05
 Identities = 44/50 (88%)
 Strand = Plus / Minus
```

```
Query: 51757   agctgcgccagtccgaacccttcaaggcacatttttatataaagccccgt 51806
               |||||||||||| ||||| ||    | ||||||||||||||| ||||||||
Sbjct: 429168  agctgcgccagcccgaagcccgccaggcacatttttatatagagccccgt 429119
```

```
 Score = 50.1 bits (25), Expect = 3e-04
 Identities = 28/29 (96%)
 Strand = Plus / Plus
```

```
Query: 36962   tgtagtagctaaattgagatgtccgtctc 36990
               |||||||||||||||||||||||| ||||
Sbjct: 48937   tgtagtagctaaattgagatgtccatctc 48965
```

```
 Score = 48.1 bits (24), Expect = 0.001
 Identities = 30/32 (93%)
 Strand = Plus / Plus
```

```
Query: 48554   acggtttccatctggctgactacgggtatctg 48585
               ||||||| |||||||||||||||||||| |||||
Sbjct: 427998  acggttgccatctggctgactacggggatctg 428029
```

```
 Score = 44.1 bits (22), Expect = 0.020
 Identities = 112/142 (78%)
 Strand = Plus / Plus


Query: 48260   ccgatggcataaaactgtcccccggcgacataatgtatggttcgtaattcgtcaggtgct 48319
               |||||||||| ||||| || || ||||||||| || | ||| ||||  ||||| || ||
Sbjct: 427704  ccgatggcatagaactgcccgcctgcgacatagtgaacggtccgtagctcgtccggcgca 427763


Query: 48320   tcatcaaatatccagtgcccattgcgaaaaacccgatcgtcactccacgcgccggcaatt 48379
               |||||||| ||||||||| || || || || ||||| || || ||||| ||| || | ||
Sbjct: 427764  tcatcaaaaatccagtgtccgttacggaatacccggtcatcgctccaggcggcgacgata 427823


Query: 48380   tctcccataaacagattatgtt 48401
               || ||||| ||||||||| ||||
Sbjct: 427824  tcgcccagaaacagattgtgtt 427845




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Minus


Query: 19046   atcggttaatgcgtttatc 19064
               |||||||||||||||||||
Sbjct: 225331  atcggttaatgcgtttatc 225313




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus


Query: 35879   aataagtcgcaaagcaatc 35897
               |||||||||||||||||||
Sbjct: 371153  aataagtcgcaaagcaatc 371171




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 59199   gcagtcggcgctgctcaa 59216
               ||||||||||||||||||
Sbjct: 417680  gcagtcggcgctgctcaa 417697
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 4284   ttgagcagcgccgactgc 4301
              ||||||||||||||||||
Sbjct: 417697 ttgagcagcgccgactgc 417680




>NODE_16_length_96205_cov_11.645944
          Length = 96205

 Score =  172 bits (87), Expect = 3e-41
 Identities = 153/175 (87%)
 Strand = Plus / Minus


Query: 39434 gtagacaaatctgccctatagtttgagcataggaggagagtatgggcacaccacgattta 39493
             ||||||  | ||||||||| ||||||||| |||||||||| |||||||||||||||||||
Sbjct: 62094 gtagacgattctgccctaaagtttgagtataggaggagcgtatgggcacaccacgattta 62035


Query: 39494 cccctgaatttaaggaagaagccgtccgtcaaataacggaacgcggttataccgtcgccg 39553
             | |||||||||| |||||||||||||||| |||| |||||||||| || | || ||||
Sbjct: 62034 cacctgaatttaaagaagaagccgtccgtcagataatggaacgcggtgattctgttgccg 61975


Query: 39554 aagtatctgactgtctgggcgtctctggacacagcctctacaagtggctacgggc 39608
             ||||||||  |   ||| ||||  |    | | ||||||||||||||||||||||
Sbjct: 61974 aagtatctaatcgtcggggcattcccgcacacagcctctacaagtggctacgggc 61920




 Score = 83.8 bits (42), Expect = 2e-14
 Identities = 51/54 (94%)
 Strand = Plus / Plus


Query: 32239 ggaaccataaatgcgttcaccgaatttactgcctgctgaaactgaattttcgtc 32292
             |||||||||||| ||||||||| |||||| ||||| ||||||||||||||||||
Sbjct: 64725 ggaaccataaatgtgttcaccggatttattgcctgctgaaactgaattttcgtc 64778




>NODE_4_length_398729_cov_7.868694
          Length = 398729

 Score = 99.6 bits (50), Expect = 4e-19
 Identities = 78/86 (90%), Gaps = 1/86 (1%)
 Strand = Plus / Minus


Query: 22466  aggggcagtttggatatcgaaaattattgtacgttaaggttat-tttttgacctttcaa 22524
              |||||||||||||||||| |||| ||||||||||||| | | ||||||||||||| |
Sbjct: 260664 aggggcagtttggatatcaaaaaatattgtacgttaaggctgtatttttgacctttcga 260605


Query: 22525  ctttagcagacctcagccgacgaaac 22550
              |||||| | ||||||||||||||||
Sbjct: 260604 ctttagctggcctcagccgacgaaac 260579
```

Score = 75.8 bits (38), Expect = 6e-12
Identities = 113/136 (83%), Gaps = 4/136 (2%)
Strand = Plus / Plus

Query: 38993 atgccgcgttagcggcatggaggcgccagatgaagctgcatgtatctgtggagtcaaatg 39052
              |||||||||| ||||||||| ||||||||||| | ||||||| | || || ||||||
Sbjct: 266148 atgccgcgtcagcggcatgacagcgccagatgatg-tgcatgtggcagtccagccaaatg 266206

Query: 39053 gcgccgaaagcccggcgtagccggttacctggctataaattctgccaccctcccccctgc 39112
              ||||||||| || ||||||||||||||| | || ||||||||||| || |||||||||
Sbjct: 266207 gcgccgaaggcttggcgtagccggttatcgggttataaattctg---ccggcccccctgc 266263

Query: 39113 cctgattagccttaac 39128
              ||||||||||||||||
Sbjct: 266264 cctgattagccttaac 266279

Score = 75.8 bits (38), Expect = 6e-12
Identities = 113/136 (83%), Gaps = 4/136 (2%)
Strand = Plus / Minus

Query: 3465   gttaaggctaatcagggcaggggggagggtggcagaatttatagccaggtaaccggctac 3524
              ||||||||||||||||||||||||||| || ||||||||| || | |||||||||||
Sbjct: 266279 gttaaggctaatcagggcaggggggccgg---cagaatttataacccgataaccggctac 266223

Query: 3525   gccgggctttcggcgccatttgactccacagatacatgcagcttcatctggcgcctccat 3584
              ||| || |||||||||||||| || || | ||||||| | ||||||||| |||
Sbjct: 266222 gccaagccttcggcgccatttggctggactgccacatgca-catcatctggcgctgtcat 266164

Query: 3585   gccgctaacgcggcat 3600
              |||||| ||||||||
Sbjct: 266163 gccgctgacgcggcat 266148

Score = 60.0 bits (30), Expect = 3e-07
Identities = 39/42 (92%)
Strand = Plus / Plus

Query: 24553 agccttaacgtacaataattttcgatatccaaactgacccct 24594
              ||||||||||||||||||| |||| ||||||||||||| |||||
Sbjct: 260623 agccttaacgtacaatattttttgatatccaaactgcccct 260664

Score = 60.0 bits (30), Expect = 3e-07
Identities = 88/106 (83%), Gaps = 1/106 (0%)
Strand = Plus / Plus

```
Query:  43749   atgccgcgttagcggcatggaggcgccagatgaagctgcatgtatctgtggagtcaaatg 43808
                |||||||||| |||||||||   |||||||||| | ||||||| | ||  || ||||||
Sbjct: 266148   atgccgcgtcagcggcatgacagcgccagatgatg-tgcatgtggcagtccagccaaatg 266206


Query:  43809   gcgccgaaagcccggcgtagccggttacctggctataaattctgcc 43854
                ||||||||| ||  |||||||||||||| | || ||||||||||||
Sbjct: 266207   gcgccgaaggcttggcgtagccggttatcgggttataaattctgcc 266252



 Score = 58.0 bits (29), Expect = 1e-06
 Identities = 38/41 (92%)
 Strand = Plus / Plus


Query:  2891    gccttaacgtacaataattttcgatatccaaactgacccct 2931
                ||||||||||||||| |||| ||||||||||||| |||||
Sbjct: 260624   gccttaacgtacaatattttttgatatccaaactgccccct 260664



 Score = 50.1 bits (25), Expect = 3e-04
 Identities = 37/41 (90%)
 Strand = Plus / Plus


Query:  39231   gcggcagcttgctgctgacgcttaggggatgttcttcagt 39271
                ||||||||||||||||||| |||| |||||| ||||||||
Sbjct: 265142   gcggcagcttgctgctgatgctttgggggagattcttcagt 265182



 Score = 50.1 bits (25), Expect = 3e-04
 Identities = 37/41 (90%)
 Strand = Plus / Minus


Query:  3322    actgaagaacatccccctaagcgtcagcagcaagctgccgc 3362
                |||||||||  |||||| |||| |||||||||||||||||||
Sbjct: 265182   actgaagaatctcccccaaagcatcagcagcaagctgccgc 265142



 Score = 50.1 bits (25), Expect = 3e-04
 Identities = 31/33 (93%)
 Strand = Plus / Plus


Query:  39231   gcggcagcttgctgctgacgcttaggggatgt 39263
                ||||||||||||||||||||||| ||| ||||||
Sbjct: 266367   gcggcagcttgctgctgacgctaaggaggatgt 266399
```

```
 Score = 50.1 bits (25), Expect = 3e-04
 Identities = 31/33 (93%)
 Strand = Plus / Minus


Query: 3330   acatcccctaagcgtcagcagcaagctgccgc 3362
              |||||| ||| ||||||||||||||||||||||
Sbjct: 266399 acatcctccttagcgtcagcagcaagctgccgc 266367




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 24/25 (96%)
 Strand = Plus / Plus


Query: 43704  tgtccgcatttggcacaaagcagac 43728
              ||||||||||||||||| ||||||||
Sbjct: 266073 tgtccgcatttggcacacagcagac 266097




 Score = 40.1 bits (20), Expect = 0.31
 Identities = 20/20 (100%)
 Strand = Plus / Plus


Query: 38165  aatgccgcgtcagcggcatg 38184
              ||||||||||||||||||||
Sbjct: 266147 aatgccgcgtcagcggcatg 266166




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Minus


Query: 710    catgccgctgacgcggcat 728
              |||||||||||||||||||
Sbjct: 266166 catgccgctgacgcggcat 266148




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 21/22 (95%)
 Strand = Plus / Minus


Query: 42721  ggtggccattggcgcgctgatg 42742
              |||||||||||||||| |||||
Sbjct: 103680 ggtggccattggcgcggtgatg 103659
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 21/22 (95%)
 Strand = Plus / Plus


Query: 8862    aaaacgctgacggtggaaattc 8883
               ||||| ||||||||||||||||||
Sbjct: 354905 aaaaccctgacggtggaaattc 354926




>NODE_9_length_237731_cov_8.189807
          Length = 237731

 Score = 87.7 bits (44), Expect = 1e-15
 Identities = 53/56 (94%)
 Strand = Plus / Minus


Query: 34964   ccagtgcagacgccttctgtcgcgttaccgtgaatctggcccacttggtatggcta 35019
               |||||||| || ||||||||||||||||||||||||||||||||| ||||||||||
Sbjct: 127818 ccagtgccgatgccttctgtcgcgttaccgtgaatctggcccactgggtatggcta 127763




 Score = 54.0 bits (27), Expect = 2e-05
 Identities = 42/47 (89%)
 Strand = Plus / Minus


Query: 34839   atgacggctcatgcagcggagttttttacattggatgaagttaaccg 34885
               |||||||||||||| |||||| |||||| | |||||| ||||||||||
Sbjct: 127940 atgacggctcatgcggcggagattttttgctttggataaagttaaccg 127894




 Score = 54.0 bits (27), Expect = 2e-05
 Identities = 36/39 (92%)
 Strand = Plus / Plus


Query: 43868   cccttgtatctaacagtttgtggtgattagctaccacca 43906
               |||||||||||||| |||||| | ||||||||||||||||
Sbjct: 128311 cccttgtatctaatagtttgcgttgattagctaccacca 128349




 Score = 50.1 bits (25), Expect = 3e-04
 Identities = 34/37 (91%)
 Strand = Plus / Plus


Query: 39306   cttgtatctaacagtttgtggtgattagctaccacca 39342
               ||||||||||| |||||| | ||||||||||||||||
Sbjct: 128313 cttgtatctaatagtttgcgttgattagctaccacca 128349
```

```
 Score = 44.1 bits (22), Expect = 0.020
 Identities = 25/26 (96%)
 Strand = Plus / Minus


Query: 681     gtactccattcaacttcagctggcgc 706
               |||| |||||||||||||||||||||
Sbjct: 128239 gtacaccattcaacttcagctggcgc 128214




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 24/26 (92%)
 Strand = Plus / Minus


Query: 42885 gtccgctatgagcgaatagctgacat 42910
             ||||||||||||||||| ||| |||||
Sbjct: 38595 gtccgctatgagcgaagagcagacat 38570




>NODE_7_length_272670_cov_9.299336
         Length = 272670

 Score = 73.8 bits (37), Expect = 2e-11
 Identities = 70/81 (86%)
 Strand = Plus / Plus


Query: 27173 cgtaccggccaggctacaggcttcatgagagatcccctccatcaggcaaccatcccccag 27232
             ||||||||||||   |||||  ||||| |||||||||||||||||||| ||||| ||||
Sbjct: 53044 cgtaccggccagcgaacaggactcatgggagatcccctccatcaggcagccatcgcccat 53103


Query: 27233 gaatagccaggtgtgatggtc 27253
             ||| | |||||||||||||||
Sbjct: 53104 gaaaacccaggtgtgatggtc 53124




 Score = 42.1 bits (21), Expect = 0.079
 Identities = 21/21 (100%)
 Strand = Plus / Minus


Query: 9108  tcgcttcgcgcagggcgttaa 9128
             |||||||||||||||||||||
Sbjct: 75925 tcgcttcgcgcagggcgttaa 75905




 Score = 40.1 bits (20), Expect = 0.31
 Identities = 41/48 (85%)
 Strand = Plus / Plus


Query: 26339 ggccgccatgcgtacggcattgcgggcatattccataaacatcaggaa 26386
             |||||||||||  |||| ||||||||| || |||   ||||||||||
```

Sbjct: 52213 ggccgccatgcgcgcggcgttgcgggcgtactccacgaacatcaggaa 52260

Score = 40.1 bits (20), Expect = 0.31
Identities = 20/20 (100%)
Strand = Plus / Minus

Query: 6365   ccagcattaaatcggcggcg 6384
              ||||||||||||||||||||
Sbjct: 115051 ccagcattaaatcggcggcg 115032

Score = 36.2 bits (18), Expect = 4.9
Identities = 69/86 (80%)
Strand = Plus / Plus

Query: 27309 gccatgccgaccgcattcgccacgccttgtcctaatgggccggtagtggtttcaacgccg 27368
             |||||||||||| || |||||||| || || || | ||||||||| ||||| || || |||
Sbjct: 53180 gccatgccgacggcgttcgccagcccctggcccagcgggccggtggtggtctccaccccg 53239

Query: 27369 ggggtgtaaccatattccgggtggcc 27394
             ||||| || |||| ||||||||||||
Sbjct: 53240 ggggtatagccatgctccgggtggcc 53265

Score = 36.2 bits (18), Expect = 4.9
Identities = 18/18 (100%)
Strand = Plus / Plus

Query: 54605 atgttttcagtggctgct 54622
             ||||||||||||||||||
Sbjct: 73895 atgttttcagtggctgct 73912

Score = 36.2 bits (18), Expect = 4.9
Identities = 18/18 (100%)
Strand = Plus / Plus

Query: 47740 ataggccgcaaactgctc 47757
             ||||||||||||||||||
Sbjct: 86650 ataggccgcaaactgctc 86667

Score = 36.2 bits (18), Expect = 4.9
Identities = 21/22 (95%)
Strand = Plus / Plus

```
Query: 5540   gatgctcaacagcttgctgctc 5561
              |||||||||||||||| ||||||
Sbjct: 87674 gatgctcaacagctttctgctc 87695
```

>NODE_41_length_1953_cov_14.457831
          Length = 1953

```
 Score = 54.0 bits (27), Expect = 2e-05
 Identities = 42/47 (89%)
 Strand = Plus / Minus
```

```
Query: 27276 ttgaactgagccgccagcgttttttccgcaatagccatgccgaccgc 27322
             ||||||||| ||||||||| ||||| || ||||||||||| ||||||||
Sbjct: 374   ttgaactgcgccgccagagttttctcggcaatagccatcccgaccgc 328
```

```
 Score = 38.2 bits (19), Expect = 1.2
 Identities = 37/43 (86%)
 Strand = Plus / Minus
```

```
Query: 26253 tgctcgaccggttgatgagtcgggccatcttcgcccagcccga 26295
             ||||| ||||| || ||||||||||| ||||| ||||| ||||
Sbjct: 1394  tgctctaccggctggtgagtcgggccgtcttcacccagaccga 1352
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 66/82 (80%)
 Strand = Plus / Minus
```

```
Query: 27348 ccggtagtggtttcaacgccggggggtgtaaccatattccgggtggccggggggtgcgggaa 27407
             ||||| ||||||||| ||||| | |||||| ||   ||||||||| || |||||   |||
Sbjct: 302   ccggtggtggtttccacgcccgcggtgtagccgacttccgggtgacccgggggttttggag 243
```

```
Query: 27408 tgtagctggcggaaatttttca 27429
             || ||||||||||| |||||||
Sbjct: 242   tgcagctggcggaagtttttca 221
```

>NODE_98_length_314_cov_0.240642
          Length = 314

```
 Score = 48.1 bits (24), Expect = 0.001
 Identities = 27/28 (96%)
 Strand = Plus / Minus
```

```
Query: 18299 aaatactctattctgtcaaaaaatacct 18326
             |||||||| |||||||||||||||||||
Sbjct: 48    aaatactatattctgtcaaaaaatacct 21
```

>NODE_14_length_153665_cov_8.989794
          Length = 153665

 Score = 44.1 bits (22), Expect = 0.020
 Identities = 25/26 (96%)
 Strand = Plus / Minus

Query: 7664 gcctttatctcgccgatgatccgcga 7689
             |||||||||||||| |||||||||||
Sbjct: 39356 gcctttatctcgcagatgatccgcga 39331

>NODE_11_length_214047_cov_8.768119
          Length = 214047

 Score = 42.1 bits (21), Expect = 0.079
 Identities = 24/25 (96%)
 Strand = Plus / Minus

Query: 50438   gctggatttattgctgaaaaattgt 50462
               ||||| |||||||||||||||||||
Sbjct: 172987 gctggttttattgctgaaaaattgt 172963

 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus

Query: 57789 tggcgattctgctggaggc 57807
             |||||||||||||||||||
Sbjct: 11241 tggcgattctgctggaggc 11259

 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus

Query: 22367 agcgctgaccgggctgcc 22384
             ||||||||||||||||||
Sbjct: 38651 agcgctgaccgggctgcc 38668

 Score = 36.2 bits (18), Expect = 4.9
 Identities = 21/22 (95%)
 Strand = Plus / Minus

Query: 44635 aatatcgagcggcagattaaag 44656

```
                  |||||||||||||| ||||||||
Sbjct: 70529 aatatcgagcggctgattaaag 70508
```

 Score = 36.2 bits (18), Expect = 4.9
 Identities = 21/22 (95%)
 Strand = Plus / Minus

```
Query: 42377 aatatcgagcggcagattaaag 42398
                  |||||||||||||| ||||||||
Sbjct: 70529 aatatcgagcggctgattaaag 70508
```

>NODE_12_length_196820_cov_8.472076
          Length = 196820

 Score = 40.1 bits (20), Expect = 0.31
 Identities = 20/20 (100%)
 Strand = Plus / Minus

```
Query: 22368 gcgctgaccgggctgcccgc 22387
                  ||||||||||||||||||||
Sbjct: 90019 gcgctgaccgggctgcccgc 90000
```

>NODE_42_length_1203_cov_15.188662
          Length = 1203

 Score = 38.2 bits (19), Expect = 1.2
 Identities = 28/31 (90%)
 Strand = Plus / Minus

```
Query: 40864 cccttgattaaggatagcgttgcatcgaccc 40894
                  ||||||||||||| |||  |||||||||||||
Sbjct: 196   cccttgattaagaataatgttgcatcgaccc 166
```

>NODE_6_length_356231_cov_9.759612
          Length = 356231

 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus

```
Query: 14604 acctgtcgctgaacaacgt 14622
                  |||||||||||||||||||
Sbjct: 16734 acctgtcgctgaacaacgt 16752
```

 Score = 36.2 bits (18), Expect = 4.9

```
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 36090  caggcaatacctgctggc 36107
              ||||||||||||||||||
Sbjct: 294311 caggcaatacctgctggc 294294




>NODE_2_length_478638_cov_9.783182
         Length = 478638

 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Plus


Query: 42343 gcatatggcgcagcagctg 42361
             |||||||||||||||||||
Sbjct: 95806 gcatatggcgcagcagctg 95824




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 22/23 (95%)
 Strand = Plus / Plus


Query: 30939  acgtacgggaagtacatttcatg 30961
              |||||||||||||| |||||||||
Sbjct: 208875 acgtacgggaagtagatttcatg 208897




 Score = 38.2 bits (19), Expect = 1.2
 Identities = 19/19 (100%)
 Strand = Plus / Minus


Query: 18649  gcactctggccatttctgg 18667
              |||||||||||||||||||
Sbjct: 255852 gcactctggccatttctgg 255834




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 27285  gccgccagcgttttttcc 27302
              ||||||||||||||||||
Sbjct: 160851 gccgccagcgttttttcc 160834
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 23463  gccgccgccagcggcaaa 23480
              ||||||||||||||||||
Sbjct: 178949 gccgccgccagcggcaaa 178932




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 27287  cgccagcgttttttccgc 27304
              ||||||||||||||||||
Sbjct: 196455 cgccagcgttttttccgc 196472




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 21/22 (95%)
 Strand = Plus / Plus


Query: 30506  ggcgcccatagcgctggaaccc 30527
              |||||||||| |||||||||||
Sbjct: 208478 ggcgcccatggcgctggaaccc 208499




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 59202  gtcggcgctgctcaacta 59219
              ||||||||||||||||||
Sbjct: 273346 gtcggcgctgctcaacta 273363




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 4281   tagttgagcagcgccgac 4298
              ||||||||||||||||||
Sbjct: 273363 tagttgagcagcgccgac 273346




>NODE_30_length_48292_cov_15.609924
         Length = 48292
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Plus


Query: 8903   cagcgctcgccagctcag 8920
              ||||||||||||||||||
Sbjct: 40471 cagcgctcgccagctcag 40488




>NODE_18_length_93281_cov_10.372534
          Length = 93281

 Score = 36.2 bits (18), Expect = 4.9
 Identities = 21/22 (95%)
 Strand = Plus / Plus


Query: 24753 agctgcaggagatgctggccga 24774
             |||||||||||||| ||||||||
Sbjct: 45303 agctgcaggagatggtggccga 45324




>NODE_10_length_222279_cov_9.401747
          Length = 222279

 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 61357 gttgtcatcagtgaccac 61374
             ||||||||||||||||||
Sbjct: 78953 gttgtcatcagtgaccac 78936




>NODE_8_length_247549_cov_9.773464
          Length = 247549

 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 61663  cgtaacccggaagcgatt 61680
              ||||||||||||||||||
Sbjct: 164113 cgtaacccggaagcgatt 164096




 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 8231    gatgctggcgctgtccac 8248
              ||||||||||||||||||
Sbjct: 166249 gatgctggcgctgtccac 166232
```

```
 Score = 36.2 bits (18), Expect = 4.9
 Identities = 18/18 (100%)
 Strand = Plus / Minus


Query: 17040  gtaccgccatcaggccat 17057
              ||||||||||||||||||
Sbjct: 166877 gtaccgccatcaggccat 166860




  Database: /vol/rast-prod/jobs/697071/rp/573.23855/contigs
    Posted date:  Mar 14, 2019  5:46 AM
  Number of letters in database: 5,874,982
  Number of sequences in database:  128


Lambda     K       H
   1.37    0.711     1.31


Gapped
Lambda     K       H
   1.37    0.711     1.31


Matrix: blastn matrix:1 -3
Gap Penalties: Existence: 5, Extension: 2
Number of Sequences: 128
Number of Hits to DB: 655,870
Number of extensions: 219
Number of successful extensions: 219
Number of sequences better than 10.0: 33
Number of HSP's gapped: 193
Number of HSP's successfully gapped: 193
Length of query: 64537
Length of database: 5,874,982
Length adjustment: 20
Effective length of query: 64517
Effective length of database: 5,872,422
Effective search space: 378871050174
Effective search space used: 378871050174
X1: 11 (21.8 bits)
X2: 15 (29.7 bits)
X3: 50 (99.1 bits)
S1: 18 (36.2 bits)
S2: 18 (36.2 bits)
```