

BLAST Basic Local Alignment Search Tool

Job Title: BorrprimerA

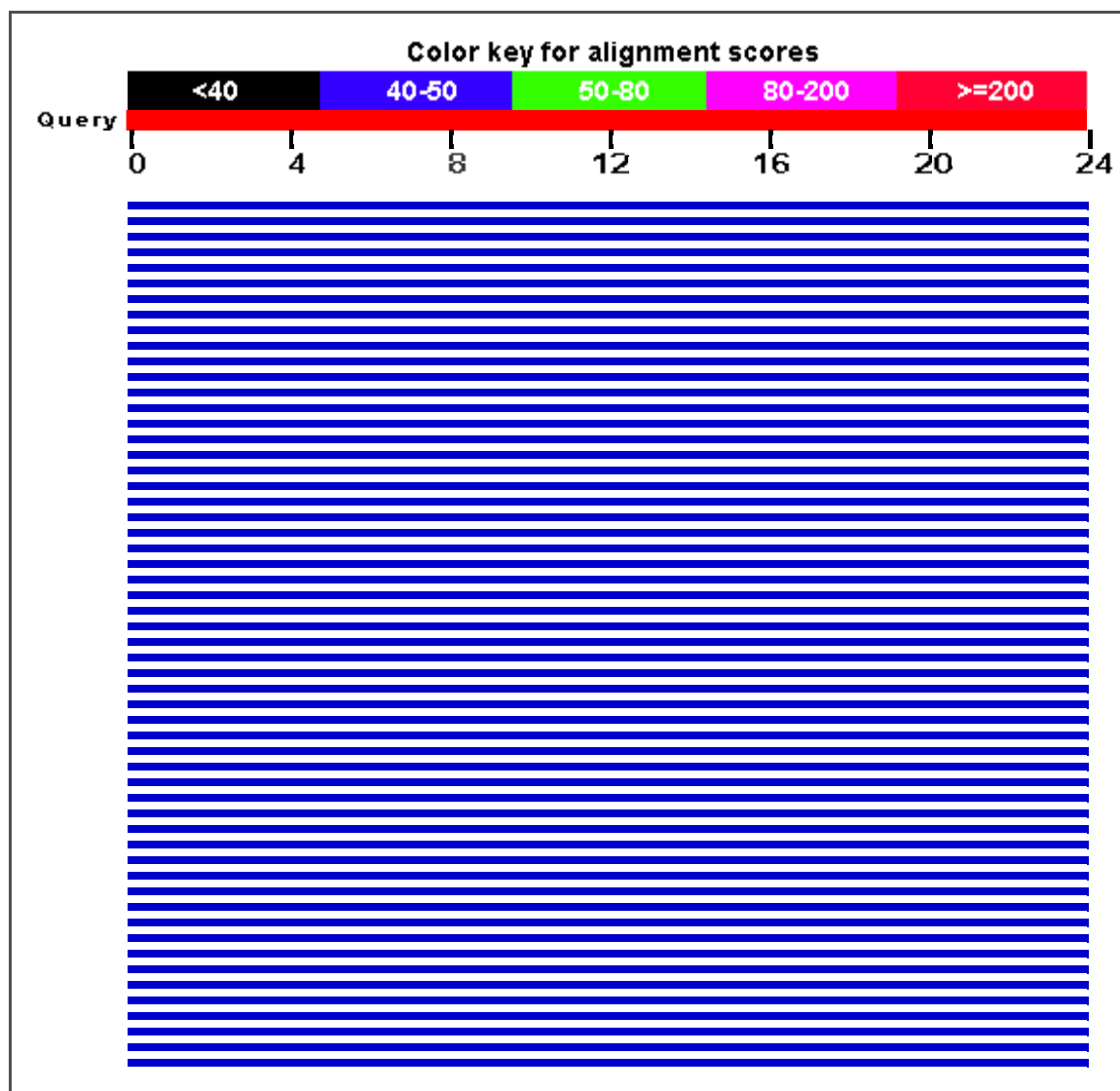
- Your search parameters were adjusted to search for a short input sequence.

BLASTN 2.2.17 (Aug-26-2007)

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. RID: PMMKJBU1012 **Database:** All GenBank+EMBL+DDBJ+PDB sequences (but no EST, STS, GSS, environmental samples or phase 0, 1 or 2 HTGS sequences) 6,196,379 sequences; 22,410,130,487 total letters

Query= BorrprimerA Length=24

Distribution of 100 Blast Hits on the Query Sequence



[Distance tree of results](#) **NEW**Legend for links to other resources: [U](#) UniGene [E](#) GEO [G](#) Gene [S](#) Structure [M](#) 1**Sequences producing significant alignments:**

(Click headers to sort columns)

EU240885.1	Borrelia sp. BR 2007 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%
D89900.1	Borrelia garinii gene for 16S rRNA, partial sequence, strain: Bernie	48.1	48.1	100%	4e-04	100%
EU025065.1	Borrelia burgdorferi isolate MI-1 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025064.1	Borrelia burgdorferi isolate SCW-60 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025063.1	Borrelia burgdorferi isolate SCW-59 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025062.1	Borrelia burgdorferi isolate SCW-58 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025061.1	Borrelia burgdorferi isolate SCW-57 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025060.1	Borrelia burgdorferi isolate SCW-54 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025059.1	Borrelia burgdorferi isolate SCW-61 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025058.1	Borrelia burgdorferi isolate SCW-48 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025057.1	Borrelia burgdorferi isolate SCW-47 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025056.1	Borrelia burgdorferi isolate SCW-44 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025055.1	Borrelia burgdorferi isolate SCW-43 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025054.1	Borrelia burgdorferi isolate SCW-12 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025053.1	Borrelia burgdorferi isolate SCW-9 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025052.1	Borrelia burgdorferi isolate SCW-6 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025051.1	Borrelia burgdorferi isolate SCW-4 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025050.1	Borrelia burgdorferi isolate SCW-2 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025049.1	Borrelia burgdorferi isolate SI-18 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025048.1	Borrelia burgdorferi isolate SI-17 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025047.1	Borrelia burgdorferi isolate SI-16 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025046.1	Borrelia burgdorferi isolate SI-19 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025045.1	Borrelia burgdorferi isolate SI-14 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025044.1	Borrelia burgdorferi isolate SCSC-6 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025043.1	Borrelia burgdorferi isolate SCSC-5 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025042.1	Borrelia burgdorferi isolate SCSC-3 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%

EU025041.1	<i>Borrelia burgdorferi</i> isolate SCSC-2 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025040.1	<i>Borrelia burgdorferi</i> isolate SCI-1 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025039.1	<i>Borrelia burgdorferi</i> isolate SCGT-17 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025038.1	<i>Borrelia burgdorferi</i> isolate SCGT-16 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025037.1	<i>Borrelia burgdorferi</i> isolate SCGT-7 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025036.1	<i>Borrelia burgdorferi</i> isolate SCGT-4 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025035.1	<i>Borrelia burgdorferi</i> isolate SCCH-30 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025034.1	<i>Borrelia burgdorferi</i> isolate SCCH-28 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025033.1	<i>Borrelia burgdorferi</i> isolate SCCH-25 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025032.1	<i>Borrelia burgdorferi</i> isolate SCCH-24 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025031.1	<i>Borrelia burgdorferi</i> isolate SCCH-31 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025030.1	<i>Borrelia burgdorferi</i> isolate BUL-8 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU025029.1	<i>Borrelia burgdorferi</i> isolate BUL-3 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014810.1	<i>Borrelia burgdorferi</i> isolate SCW-3 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014809.1	<i>Borrelia burgdorferi</i> isolate SCw-62 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014808.1	<i>Borrelia burgdorferi</i> isolate SCW-53 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014807.1	<i>Borrelia burgdorferi</i> isolate SCW-25 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014806.1	<i>Borrelia burgdorferi</i> isolate SI-15 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014805.1	<i>Borrelia burgdorferi</i> isolate SCI-1 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014804.1	<i>Borrelia burgdorferi</i> isolate SCCH-19 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014803.1	<i>Borrelia burgdorferi</i> isolate SCCH-13 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014802.1	<i>Borrelia burgdorferi</i> isolate SCCH-9 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014801.1	<i>Borrelia burgdorferi</i> isolate SCCH-3 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014800.1	<i>Borrelia burgdorferi</i> isolate BUL-10 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014799.1	<i>Borrelia burgdorferi</i> isolate BUL-6 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014798.1	<i>Borrelia burgdorferi</i> isolate BUL-5 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014797.1	<i>Borrelia burgdorferi</i> isolate BUL-4 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EU014796.1	<i>Borrelia burgdorferi</i> isolate BUL-1 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
EF541175.1	<i>Borrelia afzelii</i> strain Nov1105 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%
EF541174.1	<i>Borrelia afzelii</i> strain Nov11506 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%

EF488991.1	<i>Borrelia garinii</i> strain Nov9906 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%
EF488990.1	<i>Borrelia garinii</i> strain Nov7006 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%
EF488989.1	<i>Borrelia garinii</i> strain Nov14506 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ463373.1	<i>Borrelia garinii</i> strain 05-F35P 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%
AM182231.1	<i>Borrelia spielmanii</i> partial 16S rRNA gene, strain PJes	48.1	48.1	100%	4e-04	100%
AM182230.1	<i>Borrelia spielmanii</i> partial 16S rRNA gene, strain PAnz	48.1	48.1	100%	4e-04	100%
AM182229.1	<i>Borrelia spielmanii</i> partial 16S rRNA gene, strain PMai	48.1	48.1	100%	4e-04	100%
AM182228.1	<i>Borrelia spielmanii</i> partial 16S rRNA gene, strain PMew	48.1	48.1	100%	4e-04	100%
AM182227.1	<i>Borrelia spielmanii</i> partial 16S rRNA gene, strain PHap	48.1	48.1	100%	4e-04	100%
AM182226.1	<i>Borrelia spielmanii</i> partial 16S rRNA gene, strain PSigII	48.1	48.1	100%	4e-04	100%
AM418456.1	<i>Borrelia</i> sp. Ir-3519 partial 16S rRNA gene, isolate Ir-3519	48.1	48.1	100%	4e-04	100%
AM418455.1	<i>Borrelia</i> sp. Ir-4812 partial 16S rRNA gene, isolate Ir-4812	48.1	48.1	100%	4e-04	100%
AM418454.1	<i>Borrelia</i> sp. Ir-4721 partial 16S rRNA gene, isolate Ir-4721	48.1	48.1	100%	4e-04	100%
AM418453.1	<i>Borrelia garinii</i> partial 16S rRNA gene, isolate Ir-2200	48.1	48.1	100%	4e-04	100%
DQ393306.1	<i>Borrelia valaisiana</i> strain M7 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393305.1	<i>Borrelia valaisiana</i> strain Am501 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393304.1	<i>Borrelia californiensis</i> strain CA443 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393303.1	<i>Borrelia californiensis</i> strain CA404 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393302.1	<i>Borrelia andersonii</i> strain 19952 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393301.1	<i>Borrelia andersonii</i> strain 21133 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393300.1	<i>Borrelia andersonii</i> strain 21123 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393299.1	<i>Borrelia burgdorferi</i> strain 5LM218 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393298.1	<i>Borrelia burgdorferi</i> strain Z51094 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
DQ393297.1	<i>Borrelia burgdorferi</i> strain Sh-2-82 16S ribosomal RNA (rrs) gene, partial sequence	48.1	48.1	100%	4e-04	100%
AY884354.1	<i>Borrelia</i> sp. W97F51 16S ribosomal RNA gene, partial sequence	48.1	48.1	100%	4e-04	100%
AB091469.2	<i>Borrelia valaisiana</i> gene for 16S rRNA, partial sequence, strain:OS66/01	48.1	48.1	100%	4e-04	100%
AB091465.2	<i>Borrelia valaisiana</i> gene for 16S rRNA, partial sequence, strain:OS3/01	48.1	48.1	100%	4e-04	100%
AB091463.2	<i>Borrelia valaisiana</i> gene for 16S rRNA, partial sequence, strain:OR5/01	48.1	48.1	100%	4e-04	100%
AB091460.2	<i>Borrelia valaisiana</i> gene for 16S rRNA, partial sequence, strain:OS115/01	48.1	48.1	100%	4e-04	100%
AB091457.2	<i>Borrelia valaisiana</i> gene for 16S rRNA, partial sequence, strain:OG45/01	48.1	48.1	100%	4e-04	100%

AB091456.2	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OC1/01	48.1	48.1	100%	4e-04	100%
AB091468.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OS49	48.1	48.1	100%	4e-04	100%
AB091467.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OS42	48.1	48.1	100%	4e-04	100%
AB091466.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OS31	48.1	48.1	100%	4e-04	100%
AB091464.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OS28/01	48.1	48.1	100%	4e-04	100%
AB091462.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OM92/01	48.1	48.1	100%	4e-04	100%
AB091461.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OM58/01	48.1	48.1	100%	4e-04	100%
AB091459.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OM50	48.1	48.1	100%	4e-04	100%
AB091458.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:OM43	48.1	48.1	100%	4e-04	100%
AB178152.1	Borrelia afzelii gene for 16S rRNA, partial sequence, strain:Nr63	48.1	48.1	100%	4e-04	100%
AB178151.1	Borrelia garinii gene for 16S rRNA, partial sequence, strain:Nr267	48.1	48.1	100%	4e-04	100%
AB178150.1	Borrelia afzelii gene for 16S rRNA, partial sequence, strain:Nr25	48.1	48.1	100%	4e-04	100%
AB178149.1	Borrelia valaisiana gene for 16S rRNA, partial sequence, strain:Nr231	48.1	48.1	100%	4e-04	100%
AB178148.1	Borrelia garinii gene for 16S rRNA, partial sequence, strain:Nr198	48.1	48.1	100%	4e-04	100%

Alignments

>**gb|EU240885.1|** Borrelia sp. BR 2007 16S ribosomal RNA gene, partial sequence
Length=809

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

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Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 199  ATCTTTTCGACCTTCTTCATTCACG  176
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>**dbj|D89900.1|** Borrelia garinii gene for 16S rRNA, partial sequence, strain:
Bernie
Length=1130

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

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Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 386  ATCTTTTCGACCTTCTTCATTCACG  363
```

>**gb|EU025065.1|** Borrelia burgdorferi isolate MI-1 16S ribosomal RNA (rrs) gene,
partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331  ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU025064.1|** Borrelia burgdorferi isolate SCW-60 16S ribosomal RNA (rrs) gene,
partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331  ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU025063.1|** Borrelia burgdorferi isolate SCW-59 16S ribosomal RNA (rrs) gene,
partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331  ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU025062.1|** Borrelia burgdorferi isolate SCW-58 16S ribosomal RNA (rrs) gene,
partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331  ATCTTTTCGACCTTCTTCATTCACG  308
```

>gb|EU025061.1| *Borrelia burgdorferi* isolate SCW-57 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>gb|EU025060.1| *Borrelia burgdorferi* isolate SCW-54 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>gb|EU025059.1| *Borrelia burgdorferi* isolate SCW-61 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>gb|EU025058.1| *Borrelia burgdorferi* isolate SCW-48 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>gb|EU025057.1| *Borrelia burgdorferi* isolate SCW-47 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>gb|EU025056.1| *Borrelia burgdorferi* isolate SCW-44 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
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Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>gb|EU025055.1| *Borrelia burgdorferi* isolate SCW-43 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025054.1** | *Borrelia burgdorferi* isolate SCW-12 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025053.1** | *Borrelia burgdorferi* isolate SCW-9 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025052.1** | *Borrelia burgdorferi* isolate SCW-6 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025051.1** | *Borrelia burgdorferi* isolate SCW-4 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025050.1** | *Borrelia burgdorferi* isolate SCW-2 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025049.1** | *Borrelia burgdorferi* isolate SI-18 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025048.1** | *Borrelia burgdorferi* isolate SI-17 16S ribosomal RNA (rrs) gene,


```

Query 1      ATCTTTTCGACCTTCTTCATTCACG  24
             |||
Sbjct 331    ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025041.1**| *Borrelia burgdorferi* isolate SCSC-2 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1      ATCTTTTCGACCTTCTTCATTCACG  24
             |||
Sbjct 331    ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025040.1**| *Borrelia burgdorferi* isolate SCI-1 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1      ATCTTTTCGACCTTCTTCATTCACG  24
             |||
Sbjct 331    ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025039.1**| *Borrelia burgdorferi* isolate SCGT-17 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1      ATCTTTTCGACCTTCTTCATTCACG  24
             |||
Sbjct 331    ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025038.1**| *Borrelia burgdorferi* isolate SCGT-16 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1      ATCTTTTCGACCTTCTTCATTCACG  24
             |||
Sbjct 331    ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025037.1**| *Borrelia burgdorferi* isolate SCGT-7 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1      ATCTTTTCGACCTTCTTCATTCACG  24
             |||
Sbjct 331    ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025036.1**| *Borrelia burgdorferi* isolate SCGT-4 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```

Query 1      ATCTTTTCGACCTTCTTCATTCACG  24
             |||
Sbjct 331    ATCTTTTCGACCTTCTTCATTCACG  308

```

>**gb|EU025035.1**| *Borrelia burgdorferi* isolate SCCH-30 16S ribosomal RNA (rrs) gene, partial sequence

Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG 308

>**gb|EU025034.1** | *Borrelia burgdorferi* isolate SCCH-28 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG 308

>**gb|EU025033.1** | *Borrelia burgdorferi* isolate SCCH-25 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG 308

>**gb|EU025032.1** | *Borrelia burgdorferi* isolate SCCH-24 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG 308

>**gb|EU025031.1** | *Borrelia burgdorferi* isolate SCCH-31 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG 308

>**gb|EU025030.1** | *Borrelia burgdorferi* isolate BUL-8 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG 308

>**gb|EU025029.1** | *Borrelia burgdorferi* isolate BUL-3 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU014803.1|** *Borrelia burgdorferi* isolate SCCH-13 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU014802.1|** *Borrelia burgdorferi* isolate SCCH-9 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU014801.1|** *Borrelia burgdorferi* isolate SCCH-3 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU014800.1|** *Borrelia burgdorferi* isolate BUL-10 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU014799.1|** *Borrelia burgdorferi* isolate BUL-6 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
Sbjct 331 ATCTTTTCGACCTTCTTCATTCACG  308
```

>**gb|EU014798.1|** *Borrelia burgdorferi* isolate BUL-5 16S ribosomal RNA (rrs) gene, partial sequence
Length=1362

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1   ATCTTTTCGACCTTCTTCATTCACG  24
          |||
```


Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 354 ATCTTTTCGACCTTCTTCATTCACG 331

>**gb|DQ463373.1**| *Borrelia garinii* strain 05-F35P 16S ribosomal RNA gene, partial
 sequence
 Length=388

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 218 ATCTTTTCGACCTTCTTCATTCACG 195

>**emb|AM182231.1**| *Borrelia spielmanii* partial 16S rRNA gene, strain PJes
 Length=1389

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 345 ATCTTTTCGACCTTCTTCATTCACG 322

>**emb|AM182230.1**| *Borrelia spielmanii* partial 16S rRNA gene, strain PANz
 Length=1389

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 345 ATCTTTTCGACCTTCTTCATTCACG 322

>**emb|AM182229.1**| *Borrelia spielmanii* partial 16S rRNA gene, strain PMai
 Length=1411

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 344 ATCTTTTCGACCTTCTTCATTCACG 321

>**emb|AM182228.1**| *Borrelia spielmanii* partial 16S rRNA gene, strain PMew
 Length=1409

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 344 ATCTTTTCGACCTTCTTCATTCACG 321

>**emb|AM182227.1**| *Borrelia spielmanii* partial 16S rRNA gene, strain PHap
 Length=1412

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 344 ATCTTTTCGACCTTCTTCATTCACG 321

>**emb|AM182226.1**| *Borrelia spielmanii* partial 16S rRNA gene, strain PSigII
 Length=1389

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 344 ATCTTTTCGACCTTCTTCATTCACG 321

>emb|AM418456.1| *Borrelia* sp. Ir-3519 partial 16S rRNA gene, isolate Ir-3519
 Length=1420

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 316 ATCTTTTCGACCTTCTTCATTCACG 293

>emb|AM418455.1| *Borrelia* sp. Ir-4812 partial 16S rRNA gene, isolate Ir-4812
 Length=1210

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 106 ATCTTTTCGACCTTCTTCATTCACG 83

>emb|AM418454.1| *Borrelia* sp. Ir-4721 partial 16S rRNA gene, isolate Ir-4721
 Length=1481

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 377 ATCTTTTCGACCTTCTTCATTCACG 354

>emb|AM418453.1| *Borrelia garinii* partial 16S rRNA gene, isolate Ir-2200
 Length=1478

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 374 ATCTTTTCGACCTTCTTCATTCACG 351

>gb|DQ393306.1| *Borrelia valaisiana* strain M7 16S ribosomal RNA (rrs) gene, partial
 sequence
 Length=522

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393305.1| *Borrelia valaisiana* strain Am501 16S ribosomal RNA (rrs) gene,
 partial sequence
 Length=522

Score = 48.1 bits (24), Expect = 4e-04
 Identities = 24/24 (100%), Gaps = 0/24 (0%)
 Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
 |||
 Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393304.1| *Borrelia californiensis* strain CA443 16S ribosomal RNA (rrs)
 gene, partial sequence

Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393303.1| *Borrelia californiensis* strain CA404 16S ribosomal RNA (rrs) gene, partial sequence
Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393302.1| *Borrelia andersonii* strain 19952 16S ribosomal RNA (rrs) gene, partial sequence
Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393301.1| *Borrelia andersonii* strain 21133 16S ribosomal RNA (rrs) gene, partial sequence
Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393300.1| *Borrelia andersonii* strain 21123 16S ribosomal RNA (rrs) gene, partial sequence
Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393299.1| *Borrelia burgdorferi* strain 5LM218 16S ribosomal RNA (rrs) gene, partial sequence
Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393298.1| *Borrelia burgdorferi* strain Z51094 16S ribosomal RNA (rrs) gene, partial sequence
Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24

Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|DQ393297.1| *Borrelia burgdorferi* strain Sh-2-82 16S ribosomal RNA (rrs) gene, partial sequence
Length=522

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
Sbjct 394 ATCTTTTCGACCTTCTTCATTCACG 371

>gb|AY884354.1| *Borrelia* sp. W97F51 16S ribosomal RNA gene, partial sequence
Length=567

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
Sbjct 349 ATCTTTTCGACCTTCTTCATTCACG 326

>dbj|AB091469.2| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276

>dbj|AB091465.2| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1256

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
Sbjct 298 ATCTTTTCGACCTTCTTCATTCACG 275

>dbj|AB091463.2| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276

>dbj|AB091460.2| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276

>dbj|AB091457.2| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1256

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24

```
Sbjct 298 ATCTTTTCGACCTTCTTCATTCACG 275
```

>**dbj|AB091456.2**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1256

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
      |||
Sbjct 298 ATCTTTTCGACCTTCTTCATTCACG 275
```

>**dbj|AB091468.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
      |||
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276
```

>**dbj|AB091467.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
      |||
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276
```

>**dbj|AB091466.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
      |||
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276
```

>**dbj|AB091464.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
      |||
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276
```

>**dbj|AB091462.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1256

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
      |||
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276
```

>**dbj|AB091461.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

```
Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
      |||
```

Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276

>**dbj|AB091459.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276

>**dbj|AB091458.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:O
Length=1257

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 299 ATCTTTTCGACCTTCTTCATTCACG 276

>**dbj|AB178152.1**| *Borrelia afzelii* gene for 16S rRNA, partial sequence, strain:Nr63
Length=1267

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 311 ATCTTTTCGACCTTCTTCATTCACG 288

>**dbj|AB178151.1**| *Borrelia garinii* gene for 16S rRNA, partial sequence, strain:Nr26
Length=1260

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 306 ATCTTTTCGACCTTCTTCATTCACG 283

>**dbj|AB178150.1**| *Borrelia afzelii* gene for 16S rRNA, partial sequence, strain:Nr25
Length=1264

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 308 ATCTTTTCGACCTTCTTCATTCACG 285

>**dbj|AB178149.1**| *Borrelia valaisiana* gene for 16S rRNA, partial sequence, strain:N
Length=1261

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 308 ATCTTTTCGACCTTCTTCATTCACG 285

>**dbj|AB178148.1**| *Borrelia garinii* gene for 16S rRNA, partial sequence, strain:Nr19
Length=1259

Score = 48.1 bits (24), Expect = 4e-04
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Minus

Query 1 ATCTTTTCGACCTTCTTCATTCACG 24
|||
Sbjct 304 ATCTTTTCGACCTTCTTCATTCACG 281

Database: All GenBank+EMBL+DDBJ+PDB sequences (but no EST, STS, GSS, environmental samples or phase 0, 1 or 2 HTGS sequences)

Posted date: Dec 19, 2007 5:48 PM

Number of letters in database: 935,294,007

Number of sequences in database: 6,196,379

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: 6196379

Number of Hits to DB: 14116280

Number of extensions: 5591328

Number of successful extensions: 26054

Number of sequences better than 1000: 799

Number of HSP's better than 1000 without gapping: 0

Number of HSP's gapped: 26054

Number of HSP's successfully gapped: 820

Length of query: 24

Length of database: 22410130487

Length adjustment: 19

Effective length of query: 5

Effective length of database: 22292399286

Effective search space: 111461996430

Effective search space used: 111461996430

A: 0

X1: 11 (21.8 bits)

X2: 15 (29.7 bits)

X3: 25 (49.6 bits)

S1: 11 (22.3 bits)

S2: 14 (28.2 bits)