

[BLAST®](#) » [blastn suite-2sequences](#) » RID-YTT94HV7114

BLAST Results

[Questions/comments](#)

Blast 2 sequences

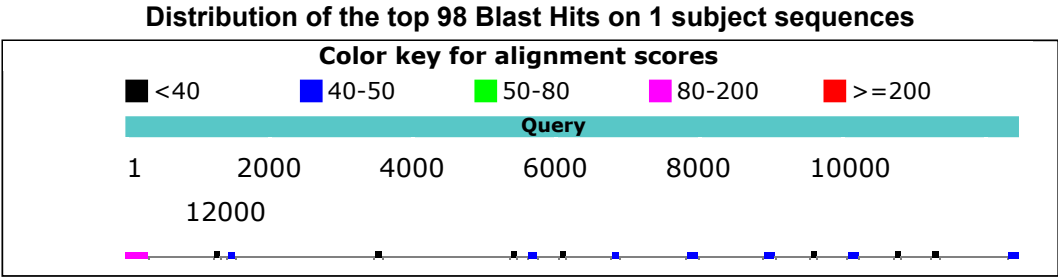
Job title: Nucleotide Sequence (12186 letters)

**RID** [YTT94HV7114](#) (Expires on 11-16 10:16 am)

**Query ID** Icl|Query\_167587  
**Description** None  
**Molecule type** nucleic acid  
**Query Length** 12186

**Subject ID** Icl|Query\_167589  
**Description** None  
[See details](#)  
**Molecule type** nucleic acid  
**Subject Length** 5763  
**Program** BLASTN 2.8.1+

[Graphic Summary](#)



Dot Matrix View



Descriptions

Sequences producing significant alignments:

| Description   | Max score | Total score | Query cover | E value | Ident | Accession    |
|---------------|-----------|-------------|-------------|---------|-------|--------------|
| None provided | 141       | 3662        | 8%          | 1e-35   | 72%   | Query_167589 |

Alignments

Sequence ID: Query\_167589 Length: 5763 Number of Matches: 98  
Range 1: 1 to 261

| Score         | Expect                                                         | Identities   | Gaps      | Strand    | Frame |
|---------------|----------------------------------------------------------------|--------------|-----------|-----------|-------|
| 141 bits(156) | 1e-35()                                                        | 188/261(72%) | 0/261(0%) | Plus/Plus |       |
| Features:     |                                                                |              |           |           |       |
| Query 1       | ATGTCTACTCTCCTGGAAAACATCTTTGCCATAATTAATCTTTTCAAGCAATATT        | Caaaa        | 60        |           |       |
| Sbjct 1       | ATGTCCGCTCTCCTGGAAAGCATCACTAGCATGATTGAAATATTCCAACAATACTCAACC   | 60           |           |           |       |
| Query 61      | aaaGATAAAAAACACTGACACATTGAGTAAAAAAGAGCTGAAGGAACCTTCTGGAAAAGGAA | 120          |           |           |       |
| Sbjct 61      | AGTGATAAGGAGGAAGAAACACTGAGCAAAGAAGAGCTGAAGGAACCTTCTGGAAGGACAA  | 120          |           |           |       |
| Query 121     | TTTCGGCAAATCCTGAAGAATCCAGATGACCCAGATATGGTTGATGCTTCATGGATCAC    | 180          |           |           |       |
| Sbjct 121     | CTACAGGCAGTCTTGAAGAATCCAGATGACCAAGACATCGCTGAAGTCTTCATGCAAATG   | 180          |           |           |       |
| Query 181     | TTGGATATAGACCACAACAAGAAAATTGACTTCACTGAGTTTCTTCTGATGGTATTCAAG   | 240          |           |           |       |
| Sbjct 181     | CTAGATGTGGACCACGATGACAAACTAGATTTCGCTGAGTATTTACTACTGGTGTAAAG    | 240          |           |           |       |
| Query 241     | TTGGCTCAAGCATATTATGAG                                          | 261          |           |           |       |
| Sbjct 241     | CTGGCAAAAGCATATTATGAG                                          | 261          |           |           |       |

Range 2: 1222 to 1310

| Score         | Expect                                                        | Identities | Gaps     | Strand    | Frame |
|---------------|---------------------------------------------------------------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07()                                                       | 64/89(72%) | 0/89(0%) | Plus/Plus |       |
| Features:     |                                                               |            |          |           |       |
| Query 5134    | CGAGGGTCCAGTGGTAGCCAGGCCAGTGACAGCGAGGGACACTCAGAAGAGTCAGACACA  | 5193       |          |           |       |
| Sbjct 1222    | CGAGGGGTACGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCTGACTTCTCAGAAGGC | 1281       |          |           |       |
| Query 5194    | CAGTCAGTGTCTAGCCACGGACAGGCTGG                                 | 5222       |          |           |       |
| Sbjct 1282    | CAGGCAGTAGGAGCTCACAGGCAGTCTGG                                 | 1310       |          |           |       |

Range 3: 1222 to 1310

| Score         | Expect                                                        | Identities | Gaps     | Strand    | Frame |
|---------------|---------------------------------------------------------------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07()                                                       | 64/89(72%) | 0/89(0%) | Plus/Plus |       |
| Features:     |                                                               |            |          |           |       |
| Query 7081    | CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTCAGAAGACTCAGACACA  | 7140       |          |           |       |
| Sbjct 1222    | CGAGGGGTACGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCTGACTTCTCAGAAGGC | 1281       |          |           |       |
| Query 7141    | CAGTCAGTGTCTAGCCACGGACAGGCTGG                                 | 7169       |          |           |       |
| Sbjct 1282    | CAGGCAGTAGGAGCTCACAGGCAGTCTGG                                 | 1310       |          |           |       |

## Range 4: 1222 to 1310

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07() | 64/89(72%) | 0/89(0%) | Plus/Plus |       |

Features:

```

Query  10969  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGGACATTGAGAAGACTCAGACACA  11028
Sbjct  1222    CGAGGGGTGTCAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGAAGGC  1281
Query  11029  CAGTCAGTGTGTCAGCCCACGGACAGGCTGG  11057
Sbjct  1282    CAGGCAGTAGGAGCTCACAGGCAGTCTGG  1310

```

## Range 5: 1975 to 2063

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07() | 64/89(72%) | 0/89(0%) | Plus/Plus |       |

Features:

```

Query  5134  CGAGGGTCCAGTGGTAGCCAGGCCAGTGACAGCGAGGGGACACTCAGAAGAGTCAGACACA  5193
Sbjct  1975    CGAGGGGTGTCAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCTGACTTCTCAGAAGGC  2034
Query  5194  CAGTCAGTGTGTCAGCCCACGGACAGGCTGG  5222
Sbjct  2035    CAGGCAGTAGGAGCTCACAGGCAGTCTGG  2063

```

## Range 6: 1975 to 2063

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07() | 64/89(72%) | 0/89(0%) | Plus/Plus |       |

Features:

```

Query  7081  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGGACATTGAGAAGACTCAGACACA  7140
Sbjct  1975    CGAGGGGTGTCAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCTGACTTCTCAGAAGGC  2034
Query  7141  CAGTCAGTGTGTCAGCCCACGGACAGGCTGG  7169
Sbjct  2035    CAGGCAGTAGGAGCTCACAGGCAGTCTGG  2063

```

## Range 7: 1975 to 2063

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07() | 64/89(72%) | 0/89(0%) | Plus/Plus |       |

Features:

```

Query  10969  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGGACATTGAGAAGACTCAGACACA  11028
Sbjct  1975    CGAGGGGTGTCAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCTGACTTCTCAGAAGGC  2034
Query  11029  CAGTCAGTGTGTCAGCCCACGGACAGGCTGG  11057
Sbjct  2035    CAGGCAGTAGGAGCTCACAGGCAGTCTGG  2063

```

## Range 8: 3463 to 3551

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07() | 64/89(72%) | 0/89(0%) | Plus/Plus |       |

Features:

```

Query  5134  CGAGGGTCCAGTGGTAGCCAGGCCAGTGACAGCGAGGGGACACTCAGAAGAGTCAGACACA  5193
Sbjct  3463    CGAGGGGTGTCAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCTGACTTCTCAGAAGGC  3522
Query  5194  CAGTCAGTGTGTCAGCCCACGGACAGGCTGG  5222
Sbjct  3523    CAGGCAGTAGGAGCTCACAGGCAGTCTGG  3551

```

## Range 9: 3463 to 3551

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07() | 64/89(72%) | 0/89(0%) | Plus/Plus |       |

## Features:

```

Query   7081  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTGAGAAGACTCAGACACA  7140
Sbjct   3463  CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCTGACTTCTCAGAAGGC  3522
Query   7141  CAGTCAGTGTGAGCCACGGACAGGCTGG  7169
Sbjct   3523  CAGGCAGTAGGAGCTCACAGGCAGTCTGG  3551

```

## Range 10: 3463 to 3551

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 48.2 bits(52) | 2e-07() | 64/89(72%) | 0/89(0%) | Plus/Plus |       |

## Features:

```

Query   10969  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTGAGAAGACTCAGACACA  11028
Sbjct   3463  CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCTGACTTCTCAGAAGGC  3522
Query   11029  CAGTCAGTGTGAGCCACGGACAGGCTGG  11057
Sbjct   3523  CAGGCAGTAGGAGCTCACAGGCAGTCTGG  3551

```

## Range 11: 2725 to 2812

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

## Features:

```

Query   5134  CGAGGGTCCAGTGGTAGCCAGGCCAGTGACAGCGAGGGACACTCAGAAGAGTCAGACACA  5193
Sbjct   2725  CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGAAGGC  2784
Query   5194  CAGTCAGTGTGAGCCACGGACAGGCTG  5221
Sbjct   2785  CAGGCAGTAGGAGCTCACAGGCAGTCTG  2812

```

## Range 12: 2725 to 2812

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

## Features:

```

Query   7081  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTGAGAAGACTCAGACACA  7140
Sbjct   2725  CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGAAGGC  2784
Query   7141  CAGTCAGTGTGAGCCACGGACAGGCTG  7168
Sbjct   2785  CAGGCAGTAGGAGCTCACAGGCAGTCTG  2812

```

## Range 13: 2725 to 2812

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

## Features:

```

Query   10969  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTGAGAAGACTCAGACACA  11028
Sbjct   2725  CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGAAGGC  2784
Query   11029  CAGTCAGTGTGAGCCACGGACAGGCTG  11056
Sbjct   2785  CAGGCAGTAGGAGCTCACAGGCAGTCTG  2812

```

## Range 14: 4213 to 4300

| Score | Expect | Identities | Gaps | Strand | Frame |
|-------|--------|------------|------|--------|-------|
|-------|--------|------------|------|--------|-------|

46.4 bits(50) 8e-07() 63/88(72%) 0/88(0%) Plus/Plus

Features:

```

Query  5134  CGAGGGTCCAGTGGTAGCCAGGCCAGTGACAGCGAGGGGACACTCAGAAGAGTCAGACACA  5193
Sbjct  4213  CGAGGGGTACGCGAGAGTCAAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC  4272

Query  5194  CAGTCAGTGTCTAGCCACGGACAGGCTG  5221
Sbjct  4273  CAGGCAGTAGGAGCTCACAGGCAGTCTG  4300

```

Range 15: 4213 to 4300

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

Features:

```

Query  7081  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGGACATTGAGAAGACTCAGACACA  7140
Sbjct  4213  CGAGGGGTACGCGAGAGTCAAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC  4272

Query  7141  CAGTCAGTGTCTAGCCACGGACAGGCTG  7168
Sbjct  4273  CAGGCAGTAGGAGCTCACAGGCAGTCTG  4300

```

Range 16: 4213 to 4300

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

Features:

```

Query  10969  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGGACATTGAGAAGACTCAGACACA  11028
Sbjct  4213  CGAGGGGTACGCGAGAGTCAAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC  4272

Query  11029  CAGTCAGTGTCTAGCCACGGACAGGCTG  11056
Sbjct  4273  CAGGCAGTAGGAGCTCACAGGCAGTCTG  4300

```

Range 17: 4951 to 5038

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

Features:

```

Query  5134  CGAGGGTCCAGTGGTAGCCAGGCCAGTGACAGCGAGGGGACACTCAGAAGAGTCAGACACA  5193
Sbjct  4951  CGAGGGGTACGCGAGAGTCAAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC  5010

Query  5194  CAGTCAGTGTCTAGCCACGGACAGGCTG  5221
Sbjct  5011  CAGGCAGTAGGAGCTCACAGGCAGTCTG  5038

```

Range 18: 4951 to 5038

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

Features:

```

Query  7081  CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGGACATTGAGAAGACTCAGACACA  7140
Sbjct  4951  CGAGGGGTACGCGAGAGTCAAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC  5010

Query  7141  CAGTCAGTGTCTAGCCACGGACAGGCTG  7168
Sbjct  5011  CAGGCAGTAGGAGCTCACAGGCAGTCTG  5038

```

Range 19: 4951 to 5038

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 46.4 bits(50) | 8e-07() | 63/88(72%) | 0/88(0%) | Plus/Plus |       |

## Features:

Query 10969 CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTGAGAAGACTCAGACACA 11028  
 Sbjct 4951 CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGAAGGC 5010  
 Query 11029 CAGTCAGTGTGAGCCACGGACAGGCTGG 11056  
 Sbjct 5011 CAGGCAGTAGGAGCTCACAGGCAGTCTGG 5038

Range 20: 1222 to 1310

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 63/89(71%) | 0/89(0%) | Plus/Plus |       |

## Features:

Query 8053 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTGAGAAGACTCAGACACA 8112  
 Sbjct 1222 CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGAAGGC 1281  
 Query 8113 CAGTCAGTGTGAGCCACGGACAGGCTGG 8141  
 Sbjct 1282 CAGGCAGTAGGAGCTCACAGGCAGTCTGG 1310

Range 21: 1222 to 1310

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 63/89(71%) | 0/89(0%) | Plus/Plus |       |

## Features:

Query 9025 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTGAGAAGACTCAGACACA 9084  
 Sbjct 1222 CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGAAGGC 1281  
 Query 9085 CAGTCAGTGTGAGCCACGGACAGGCTGG 9113  
 Sbjct 1282 CAGGCAGTAGGAGCTCACAGGCAGTCTGG 1310

Range 22: 1225 to 1277

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 43/54(80%) | 1/54(1%) | Plus/Plus |       |

## Features:

Query 1245 GGGGTCTAGCGGTAGTCAGGCCAGTGACAGTGAGGGACATTGAGAAAACCTCAGA 1298  
 Sbjct 1225 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGA 1277

Range 23: 1975 to 2063

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 63/89(71%) | 0/89(0%) | Plus/Plus |       |

## Features:

Query 8053 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTGAGAAGACTCAGACACA 8112  
 Sbjct 1975 CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGAAGGC 2034  
 Query 8113 CAGTCAGTGTGAGCCACGGACAGGCTGG 8141  
 Sbjct 2035 CAGGCAGTAGGAGCTCACAGGCAGTCTGG 2063

Range 24: 1975 to 2063

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 63/89(71%) | 0/89(0%) | Plus/Plus |       |

## Features:

Query 9025 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTGAGAAGACTCAGACACA 9084  
 Sbjct 1975 CGAGGGGTGAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGAAGGC 2034  
 Query 9085 CAGTCAGTGTGAGCCACGGACAGGCTGG 9113

Sbjct 2035 CAGGCAGTAGGAGCTCACAGGCAGTCTGG 2063

Range 25: 1978 to 2030

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 43/54(80%) | 1/54(1%) | Plus/Plus |       |

Features:

Query 1245 GGGGTCTAGCGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAACTCAGA 1298  
Sbjct 1978 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGA 2030

Range 26: 2728 to 2780

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 43/54(80%) | 1/54(1%) | Plus/Plus |       |

Features:

Query 1245 GGGGTCTAGCGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAACTCAGA 1298  
Sbjct 2728 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGA 2780

Range 27: 3463 to 3551

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 63/89(71%) | 0/89(0%) | Plus/Plus |       |

Features:

Query 8053 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTAGAAAGACTCAGACACA 8112  
Sbjct 3463 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGAAGGC 3522  
Query 8113 CAGTCAGTGTACGCCACGGACAGGCTGG 8141  
Sbjct 3523 CAGGCAGTAGGAGCTCACAGGCAGTCTGG 3551

Range 28: 3463 to 3551

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 63/89(71%) | 0/89(0%) | Plus/Plus |       |

Features:

Query 9025 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTAGAAAGACTCAGACACA 9084  
Sbjct 3463 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGAAGGC 3522  
Query 9085 CAGTCAGTGTACGCCACGGACAGGCTGG 9113  
Sbjct 3523 CAGGCAGTAGGAGCTCACAGGCAGTCTGG 3551

Range 29: 3466 to 3518

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 43/54(80%) | 1/54(1%) | Plus/Plus |       |

Features:

Query 1245 GGGGTCTAGCGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAACTCAGA 1298  
Sbjct 3466 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGA 3518

Range 30: 4216 to 4268

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 43/54(80%) | 1/54(1%) | Plus/Plus |       |

Features:

Query 1245 GGGGTCTAGCGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAACCTCAGA 1298  
Sbjct 4216 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGA 4268

Range 31: 4954 to 5006

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 43/54(80%) | 1/54(1%) | Plus/Plus |       |

Features:

Query 1245 GGGGTCTAGCGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAACCTCAGA 1298  
Sbjct 4954 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGA 5006

Range 32: 5694 to 5740

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 38/47(81%) | 0/47(0%) | Plus/Plus |       |

Features:

Query 5134 CGAGGGTCCAGTGGTAGCCAGGCCAGTGACAGCGAGGGACACTCAGA 5180  
Sbjct 5694 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 5740

Range 33: 5697 to 5749

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 44.6 bits(48) | 3e-06() | 43/54(80%) | 1/54(1%) | Plus/Plus |       |

Features:

Query 1245 GGGGTCTAGCGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAACCTCAGA 1298  
Sbjct 5697 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGA 5749

Range 34: 1222 to 1277

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 6109 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAGACTCAGA 6164  
Sbjct 1222 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGA 1277

Range 35: 1975 to 2030

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 6109 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTAGAAAGACTCAGA 6164  
Sbjct 1975 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGACTTCTCAGA 2030

Range 36: 2725 to 2812

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 62/88(70%) | 0/88(0%) | Plus/Plus |       |

Features:

Query 8053 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAAATGAGGGACATTAGAAAGACTCAGACACA 8112  
Sbjct 2725 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGAAGGC 2784  
Query 8113 CAGTCAGTGTGACCCACGGACAGGCTG 8140  
Sbjct 2785 CAGGCAGTAGGAGCTCACAGGCAGTCTG 2812



## Range 37: 2725 to 2812

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 62/88(70%) | 0/88(0%) | Plus/Plus |       |

Features:

Query 9025 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATT CAGAAGACTCAGACACA 9084  
 Sbjct 2725 CGAGGGGT CAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC 2784  
 Query 9085 CAGTCAGTGT CAGCCACGGACAGGCTG 9112  
 Sbjct 2785 CAGGCAGTAGGAGCTCACAGGCAGTCTG 2812

## Range 38: 2725 to 2780

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 6109 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATT CAGAAGACTCAGA 6164  
 Sbjct 2725 CGAGGGGT CAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGA 2780

## Range 39: 3463 to 3518

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 6109 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATT CAGAAGACTCAGA 6164  
 Sbjct 3463 CGAGGGGT CAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCTGACTTCTCAGA 3518

## Range 40: 4213 to 4300

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 62/88(70%) | 0/88(0%) | Plus/Plus |       |

Features:

Query 8053 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATT CAGAAGACTCAGACACA 8112  
 Sbjct 4213 CGAGGGGT CAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC 4272  
 Query 8113 CAGTCAGTGT CAGCCACGGACAGGCTG 8140  
 Sbjct 4273 CAGGCAGTAGGAGCTCACAGGCAGTCTG 4300

## Range 41: 4213 to 4300

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 62/88(70%) | 0/88(0%) | Plus/Plus |       |

Features:

Query 9025 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATT CAGAAGACTCAGACACA 9084  
 Sbjct 4213 CGAGGGGT CAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCCACTCCGACTTCTCAGAAGGC 4272  
 Query 9085 CAGTCAGTGT CAGCCACGGACAGGCTG 9112  
 Sbjct 4273 CAGGCAGTAGGAGCTCACAGGCAGTCTG 4300

## Range 42: 4213 to 4268

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 6109 CGAGGGGTACAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATT CAGAAGACTCAGA 6164  
 Sbjct 4213 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGA 4268

Range 43: 4951 to 5038

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 62/88(70%) | 0/88(0%) | Plus/Plus |       |

Features:

Query 8053 CGAGGGGTACAGTGGTAGTCAGGCCAGTGACAAATGAGGGACATT CAGAAGACTCAGACACA 8112  
 Sbjct 4951 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGAAGGC 5010  
 Query 8113 CAGTCAGTGT CAGCCACGGACAGGCTG 8140  
 Sbjct 5011 CAGGCAGTAGGAGCTCAGGCAGTCTG 5038

Range 44: 4951 to 5038

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 62/88(70%) | 0/88(0%) | Plus/Plus |       |

Features:

Query 9025 CGAGGGGTACAGTGGTAGTCAGGCCAGTGACAAATGAGGGACATT CAGAAGACTCAGACACA 9084  
 Sbjct 4951 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGAAGGC 5010  
 Query 9085 CAGTCAGTGT CAGCCACGGACAGGCTG 9112  
 Sbjct 5011 CAGGCAGTAGGAGCTCAGGCAGTCTG 5038

Range 45: 4951 to 5006

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 6109 CGAGGGGTACAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATT CAGAAGACTCAGA 6164  
 Sbjct 4951 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGA 5006

Range 46: 5694 to 5749

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 6109 CGAGGGGTACAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATT CAGAAGACTCAGA 6164  
 Sbjct 5694 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGA 5749

Range 47: 5694 to 5749

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 7081 CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATT CAGAAGACTCAGA 7136  
 Sbjct 5694 CGAGGGGTACAGCGAGAGTCAGGCCAGCGACAGCGAGGGGCACTCCGACTTCTCAGA 5749

Range 48: 5694 to 5749

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 42.8 bits(46) | 9e-06() | 43/56(77%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 10969 CGAGGGTCCAGTGGTAGTCAGGCCAGTGACAGTGAGGGACATTCAGAAGACTCAGA 11024  
 Sbjct 5694 CGAGGGGTACGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGA 5749

Range 49: 5694 to 5749

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 39.2 bits(42) | 1e-04() | 42/56(75%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 8053 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTCAGAAGACTCAGA 8108  
 Sbjct 5694 CGAGGGGTACGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGA 5749

Range 50: 5694 to 5749

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 39.2 bits(42) | 1e-04() | 42/56(75%) | 0/56(0%) | Plus/Plus |       |

Features:

Query 9025 CGAGGGTACAGTGGTAGTCAGGCCAGTGACAATGAGGGACATTCAGAAGACTCAGA 9080  
 Sbjct 5694 CGAGGGGTACGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGACTTCTCAGA 5749

Range 51: 1225 to 1268

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 3192 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 3236  
 Sbjct 1225 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGA 1268

Range 52: 1225 to 1268

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 9999 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 10043  
 Sbjct 1225 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGA 1268

Range 53: 1978 to 2021

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 3192 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 3236  
 Sbjct 1978 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGA 2021

Range 54: 1978 to 2021

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 9999 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 10043  
 Sbjct 1978 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGA 2021

Range 55: 2728 to 2771

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 3192 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 3236  
 Sbjct 2728 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 2771

Range 56: 2728 to 2771

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 9999 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 10043  
 Sbjct 2728 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 2771

Range 57: 3466 to 3509

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 3192 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 3236  
 Sbjct 3466 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGA 3509

Range 58: 3466 to 3509

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 9999 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 10043  
 Sbjct 3466 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCTGA 3509

Range 59: 4216 to 4259

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 3192 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 3236  
 Sbjct 4216 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 4259

Range 60: 4216 to 4259

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 9999 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 10043  
 Sbjct 4216 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 4259

Range 61: 4954 to 4997

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 3192 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 3236  
 Sbjct 4954 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 4997

Range 62: 4954 to 4997

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 9999 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 10043  
 Sbjct 4954 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 4997

Range 63: 5697 to 5740

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 3192 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 3236  
 Sbjct 5697 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 5740

Range 64: 5697 to 5740

| Score         | Expect  | Identities | Gaps     | Strand    | Frame |
|---------------|---------|------------|----------|-----------|-------|
| 33.7 bits(36) | 0.005() | 35/45(78%) | 1/45(2%) | Plus/Plus |       |

Features:

Query 9999 GGGGTCCAGTGGTAGTCAGGCCAGTGATAGTGAGGGACATTCAGA 10043  
 Sbjct 5697 GGGGTC-AGCGAGAGTCAGGCCAGCGACAGCGAGGGCCACTCCGA 5740

Range 65: 970 to 987

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 28.3 bits(30) | 0.21() | 17/18(94%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5149 AGCCAGGCCAGTGACAGC 5166  
 Sbjct 970 AGCCAGTCCAGTGACAGC 987

Range 66: 1723 to 1740

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 28.3 bits(30) | 0.21() | 17/18(94%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5149 AGCCAGGCCAGTGACAGC 5166  
 Sbjct 1723 AGCCAGTCCAGTGACAGC 1740

Range 67: 2473 to 2490

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 28.3 bits(30) | 0.21() | 17/18(94%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5149 AGCCAGGCCAGTGACAGC 5166  
 Sbjct 2473 AGCCAGTCCAGTGACAGC 2490

Range 68: 3211 to 3228

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 28.3 bits(30) | 0.21() | 17/18(94%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5149 AGCCAGGCCAGTGACAGC 5166  
 Sbjct 3211 AGCCAGTCCAGTGACAGC 3228

Range 69: 4699 to 4716

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 28.3 bits(30) | 0.21() | 17/18(94%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5149 AGCCAGGCCAGTGACAGC 5166  
 Sbjct 4699 AGCCAGTCCAGTGACAGC 4716

Range 70: 5442 to 5459

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 28.3 bits(30) | 0.21() | 17/18(94%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5149 AGCCAGGCCAGTGACAGC 5166  
 Sbjct 5442 AGCCAGTCCAGTGACAGC 5459

Range 71: 1295 to 1307

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 8610 CTCACAGGCAGTC 8622  
 Sbjct 1295 CTCACAGGCAGTC 1307

Range 72: 1295 to 1307

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 9582 CTCACAGGCAGTC 9594  
 Sbjct 1295 CTCACAGGCAGTC 1307

Range 73: 1542 to 1557

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 15/16(94%) | 0/16(0%) | Plus/Plus |       |

Features:

Query 5007 CCAGGAACAGGCAAGG 5022  
 Sbjct 1542 CCAGGAACAGGGAAGG 1557

Range 74: 2048 to 2060

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 8610 CTCACAGGCAGTC 8622  
Sbjct 2048 CTCACAGGCAGTC 2060

Range 75: 2048 to 2060

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 9582 CTCACAGGCAGTC 9594  
Sbjct 2048 CTCACAGGCAGTC 2060

Range 76: 2113 to 2130

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 16/18(89%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5476 GGATCCCACTATGAGCAA 5493  
Sbjct 2113 GGATACTACTATGAGCAA 2130

Range 77: 2292 to 2307

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 15/16(94%) | 0/16(0%) | Plus/Plus |       |

Features:

Query 5007 CCAGGAACAGGCAAGG 5022  
Sbjct 2292 CCAGGAACAGGGAAGG 2307

Range 78: 2798 to 2810

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 8610 CTCACAGGCAGTC 8622  
Sbjct 2798 CTCACAGGCAGTC 2810

Range 79: 2798 to 2810

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 9582 CTCACAGGCAGTC 9594  
Sbjct 2798 CTCACAGGCAGTC 2810

Range 80: 2863 to 2880

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 16/18(89%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5476 GGATCCCACTATGAGCAA 5493  
Sbjct 2863 GGATACTACTATGAGCAA 2880

Range 81: 3030 to 3045

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 15/16(94%) | 0/16(0%) | Plus/Plus |       |

Features:

Query 5007 CCAGGAACAGGCAAGG 5022  
 Sbjct 3030 CCAGGAACAGGGAAGG 3045

Range 82: 3536 to 3548

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 8610 CTCACAGGCAGTC 8622  
 Sbjct 3536 CTCACAGGCAGTC 3548

Range 83: 3536 to 3548

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 9582 CTCACAGGCAGTC 9594  
 Sbjct 3536 CTCACAGGCAGTC 3548

Range 84: 3601 to 3618

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 16/18(89%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5476 GGATCCCACTATGAGCAA 5493  
 Sbjct 3601 GGATACTACTATGAGCAA 3618

Range 85: 3780 to 3795

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 15/16(94%) | 0/16(0%) | Plus/Plus |       |

Features:

Query 5007 CCAGGAACAGGCAAGG 5022  
 Sbjct 3780 CCAGGAACAGGGAAGG 3795

Range 86: 3961 to 3978

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 16/18(89%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5149 AGCCAGGCCAGTGACAGC 5166  
 Sbjct 3961 AGCCGGTCCAGTGACAGC 3978

Range 87: 4286 to 4298

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:



Query 8610 CTCACAGGCAGTC 8622  
 Sbjct 4286 CTCACAGGCAGTC 4298

Range 88: 4286 to 4298

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 9582 CTCACAGGCAGTC 9594  
 Sbjct 4286 CTCACAGGCAGTC 4298

Range 89: 4351 to 4368

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 16/18(89%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5476 GGATCCCACTATGAGCAA 5493  
 Sbjct 4351 GGATACTACTATGAGCAA 4368

Range 90: 4518 to 4533

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 15/16(94%) | 0/16(0%) | Plus/Plus |       |

Features:

Query 5007 CCAGGAACAGGCAAGG 5022  
 Sbjct 4518 CCAGGAACAGGGAAGG 4533

Range 91: 5024 to 5036

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 8610 CTCACAGGCAGTC 8622  
 Sbjct 5024 CTCACAGGCAGTC 5036

Range 92: 5024 to 5036

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 9582 CTCACAGGCAGTC 9594  
 Sbjct 5024 CTCACAGGCAGTC 5036

Range 93: 5089 to 5106

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 24.7 bits(26) | 2.5()  | 16/18(89%) | 0/18(0%) | Plus/Plus |       |

Features:

Query 5476 GGATCCCACTATGAGCAA 5493  
 Sbjct 5089 GGATACTACTATGAGCAA 5106

Range 94: 1425 to 1436

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 22.9 bits(24) | 8.8()  | 12/12(100%) | 0/12(0%) | Plus/Plus |       |

Features:

Query 1158 CGGCCACCAGCA 1169  
 Sbjct 1425 CGGCCACCAGCA 1436

Range 95: 2169 to 2180

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 22.9 bits(24) | 8.8()  | 12/12(100%) | 0/12(0%) | Plus/Plus |       |

Features:

Query 1158 CGGCCACCAGCA 1169  
 Sbjct 2169 CGGCCACCAGCA 2180

Range 96: 2913 to 2924

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 22.9 bits(24) | 8.8()  | 12/12(100%) | 0/12(0%) | Plus/Plus |       |

Features:

Query 1158 CGGCCACCAGCA 1169  
 Sbjct 2913 CGGCCACCAGCA 2924

Range 97: 4401 to 4412

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 22.9 bits(24) | 8.8()  | 12/12(100%) | 0/12(0%) | Plus/Plus |       |

Features:

Query 1158 CGGCCACCAGCA 1169  
 Sbjct 4401 CGGCCACCAGCA 4412

Range 98: 5145 to 5156

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 22.9 bits(24) | 8.8()  | 12/12(100%) | 0/12(0%) | Plus/Plus |       |

Features:

Query 1158 CGGCCACCAGCA 1169  
 Sbjct 5145 CGGCCACCAGCA 5156

BLAST is a registered trademark of the National Library of Medicine


[Support center](#)
[Mailing list](#)
[YouTube](#)

[National Library Of Medicine](#)

[National Institutes Of Health](#)



- [U.S. Department of Health & Human Services](#)



- [USA.gov](#)

## **NCBI**

*National Center for Biotechnology Information*, [U.S. National Library of Medicine](#) 8600 Rockville Pike, Bethesda MD, 20894 USA  
[Policies and Guidelines](#) | [Contact](#)