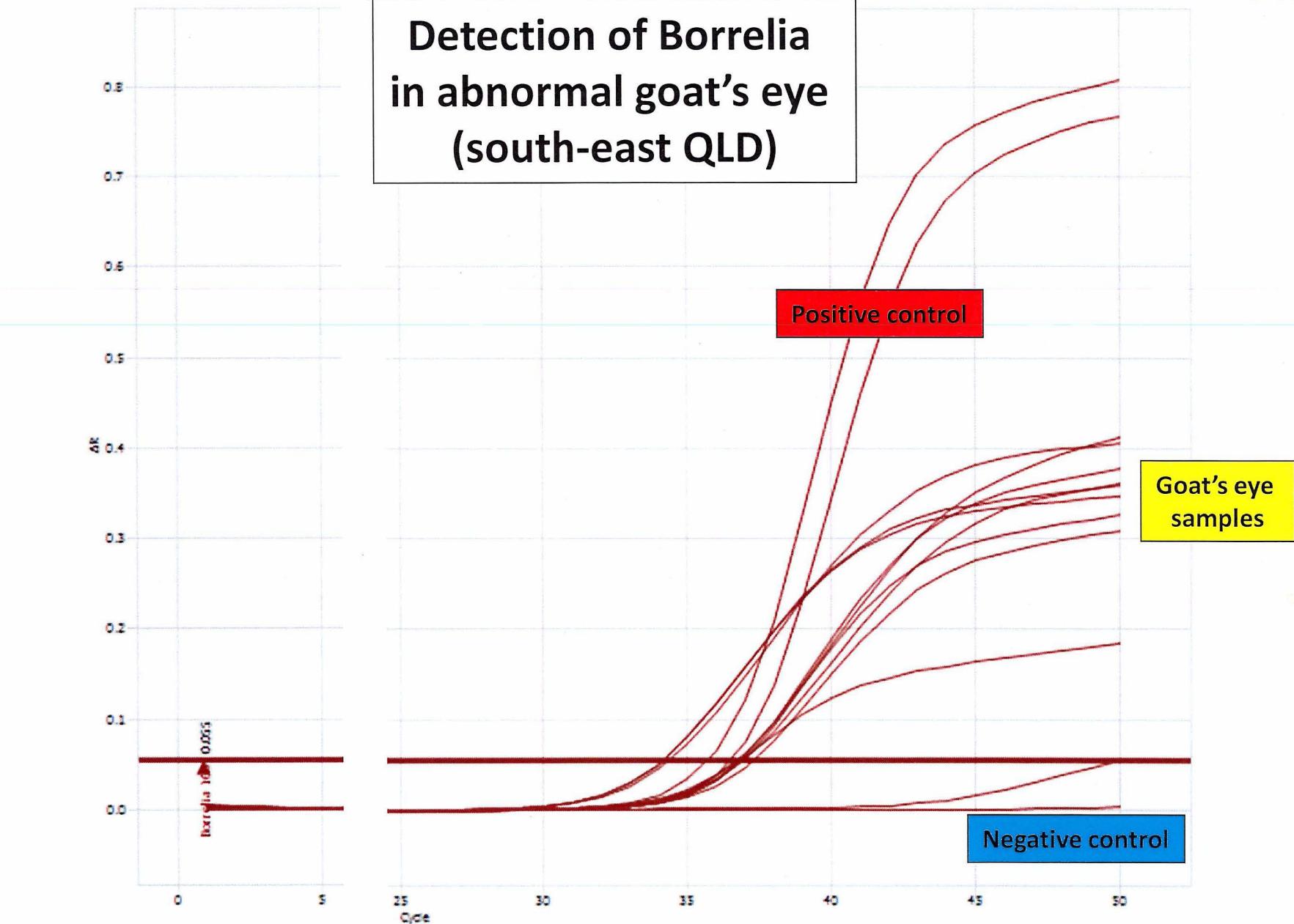


Tabled by Australian Biologics
Ms Jennie Burke
15 April 2016

Detection of Borrelia in abnormal goat's eye (south-east QLD)



Results (individual Cq values)

| Well | Exclude | Sample Name | Assay Name | Assay Role | Cq |
|------|---------|---------------------|--------------|------------|-------|
| A4 | | Eye blood vessel | Borrelia 16S | Unknown | 34.1 |
| A5 | | Eye blood vessel | Borrelia 16S | Unknown | 34.12 |
| A6 | | Eye blood vessel | Borrelia 16S | Unknown | 34.34 |
| A7 | | Intraocular flui... | Borrelia 16S | Unknown | 36.73 |
| A8 | | Intraocular flui... | Borrelia 16S | Unknown | 36.83 |
| B1 | | Intraocular flui... | Borrelia 16S | Unknown | 36.76 |
| B2 | | Extraocular tiss... | Borrelia 16S | Unknown | 36.66 |
| B3 | | Extraocular tiss... | Borrelia 16S | Unknown | 36.91 |
| B4 | | Extraocular tiss... | Borrelia 16S | Unknown | 37.23 |
| F5 | | Negative Control | Borrelia 16S | Negative | N/A |
| F6 | | Negative Control | Borrelia 16S | Negative | N/A |
| F7 | | Positive Control | Borrelia 16S | Positive | 35.67 |
| F8 | | Positive Control | Borrelia 16S | Positive | 36.46 |

Cornea, 2008 May;27(4):498-500. doi: 10.1097/ICO.0b013e318162a8f5.

Borrelia-associated crystalline keratopathy with intracorneal detection of Borrelia garinii by electron microscopy and polymerase chain reaction.

Dietrich T¹, Geissdörfer W, Schlötzer-Schrehardt U, Holbach L, Schoerner C, Seitz B.

Author information

Abstract

First report of a patient with Borrelia-associated crystalline keratopathy with intracorneal evidence of Borrelia garinii by polymerase chain reaction (PCR) and electron microscopy (EM).

METHODS:

Report of a 67-year-old patient with medical history of recurrent iridocyclitis and arthritis presented with a bilateral, progressive, asymmetric crystalline keratopathy, which was particularly pronounced in the peripheral temporal superior cornea. After penetrating keratoplasty, crystalline keratopathy with stromal haziness recurred. Corneal regrafting was performed. The corneal specimen from the penetrating keratoplasty was examined by light and EM as well as by PCR.

RESULTS:

In the explanted corneal graft, as well as retrospectively in the corneal specimen from the first keratoplasty, spirochetelike bodies and fragments were detected by light and EM. Borrelia burgdorferi sensu lato DNA was demonstrated by broad-range (16S rDNA) PCR. A more precise identification as Borrelia garinii serotype 5 was possible by analyses of the flaB and ospA gene sequences. Borrelia-specific serological tests showed borderline titers in immunofluorescence and weak reaction in immunoblot, respectively.

CONCLUSIONS:

This case illustrates that borreliae must be considered as a cause of crystalline keratopathy; Borrelia-specific serological tests can be false negative; explanted cornea specimens of etiologically unclear crystalline keratopathy should be analyzed by EM or PCR for detection of pathogens; and prolonged antibiotic treatment might be effective to prevent progression or recurrence of the disease.

PMID:

18434857

[PubMed - indexed for MEDLINE]

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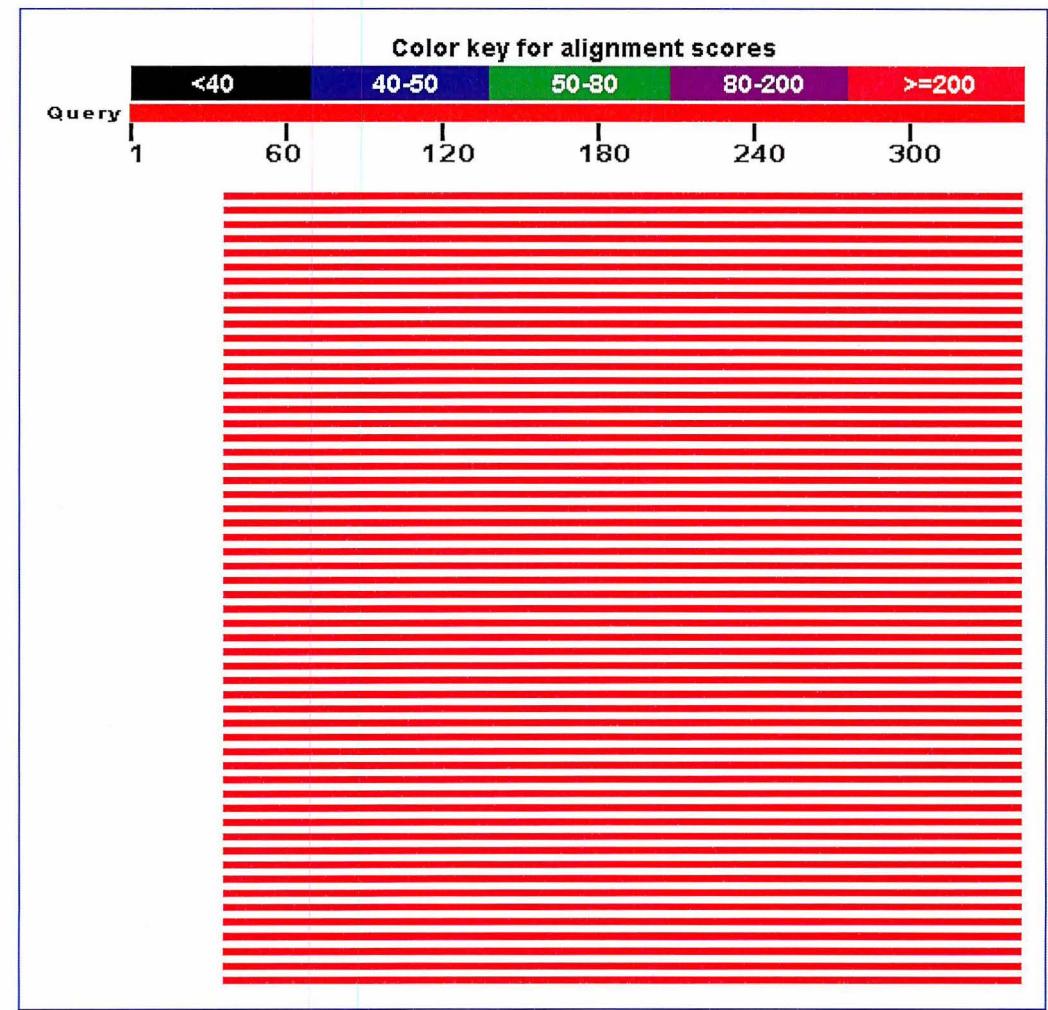
CF0046

Query ID Icl|997
Description None
Molecule type nucleic acid
Query Length 342

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.2.27+

Graphic Summary

Distribution of 100 Blast Hits on the Query Sequence



Descriptions

| Description | Max score | Total score | Query cover | E value | Max ident | Accession |
|--|-----------|-------------|-------------|---------|-----------|----------------------------|
| Borrelia burgdorferi N40, complete genome | 544 | 544 | 89% | 2e-151 | 99% | CP002228.1 |
| Borrelia burgdorferi JD1, complete genome | 544 | 544 | 89% | 2e-151 | 99% | CP002312.1 |
| Borrelia americana strain SCW-30h 16S ribosomal RNA gene, partial sequence | 544 | 544 | 89% | 2e-151 | 99% | HM802226.1 |
| Borrelia americana strain SCW-30f 16S ribosomal RNA gene, partial sequence | 544 | 544 | 89% | 2e-151 | 99% | HM802225.1 |
| Borrelia sp. SCW-30d 16S ribosomal RNA gene, partial sequence | 544 | 544 | 89% | 2e-151 | 99% | HM802224.1 |
| Borrelia sp. SCW-30c 16S ribosomal RNA gene, partial sequence | 544 | 544 | 89% | 2e-151 | 99% | HM802223.1 |
| Borrelia sp. SCW-30b 16S ribosomal RNA gene, partial sequence | 544 | 544 | 89% | 2e-151 | 99% | HM802222.1 |
| Borrelia sp. SCW-30a 16S ribosomal RNA gene, partial sequence | 544 | 544 | 89% | 2e-151 | 99% | HM802221.1 |
| Borrelia americana strain SCW-42c 16S ribosomal RNA (rrs) gene, partial sequence | 544 | 544 | 89% | 2e-151 | 99% | EU081288.1 |
| Borrelia americana strain SCW-42b 16S | | | | | | |

BLAST Results

CF98

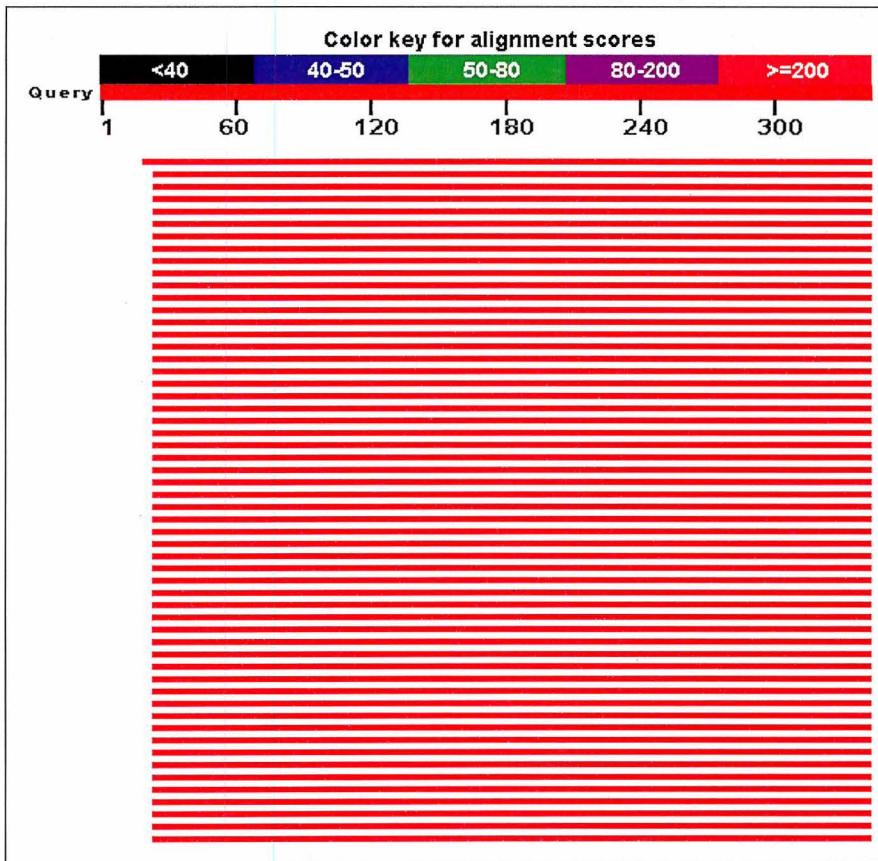
RID [GVH53U5M014](#) (Expires on 04-14 12:01 pm)

Query ID lcl|Query_243679
Description CF98
Molecule type nucleic acid
Query Length 344

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.3.1+

Graphic Summary

Distribution of 100 Blast Hits on the Query Sequence



BLAST Results

CF109

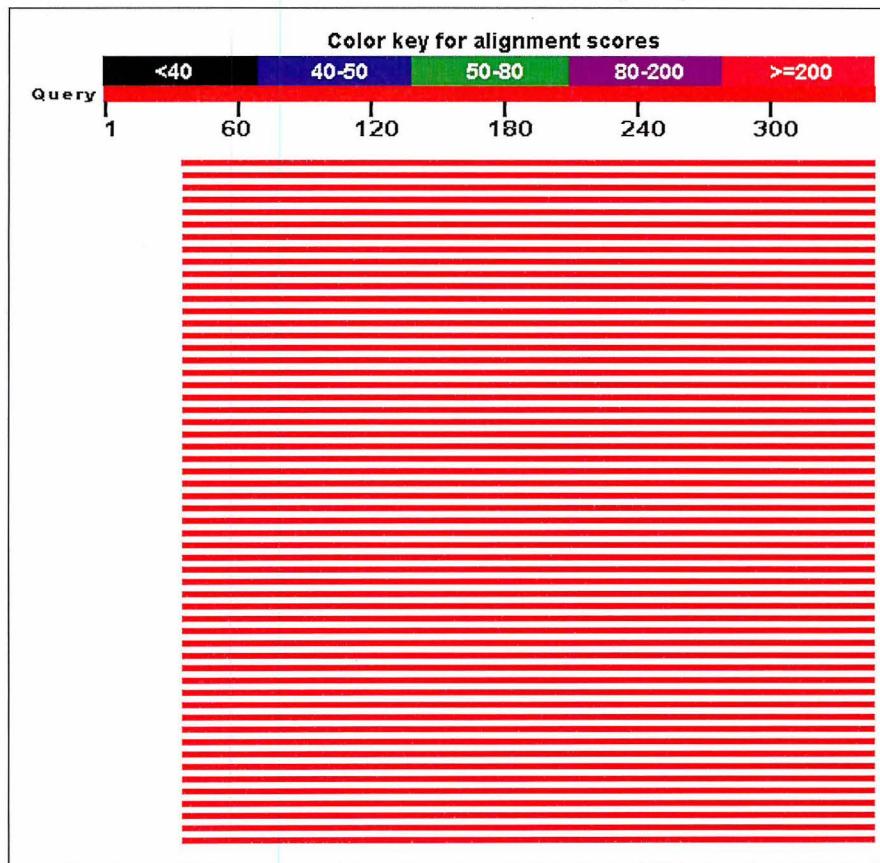
RID [GVHC456001R](#) (Expires on 04-14 12:05 pm)

Query ID lcl|Query_7529
Description CF109
Molecule type nucleic acid
Query Length 345

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.3.1+

[Graphic Summary](#)

Distribution of 100 Blast Hits on the Query Sequence



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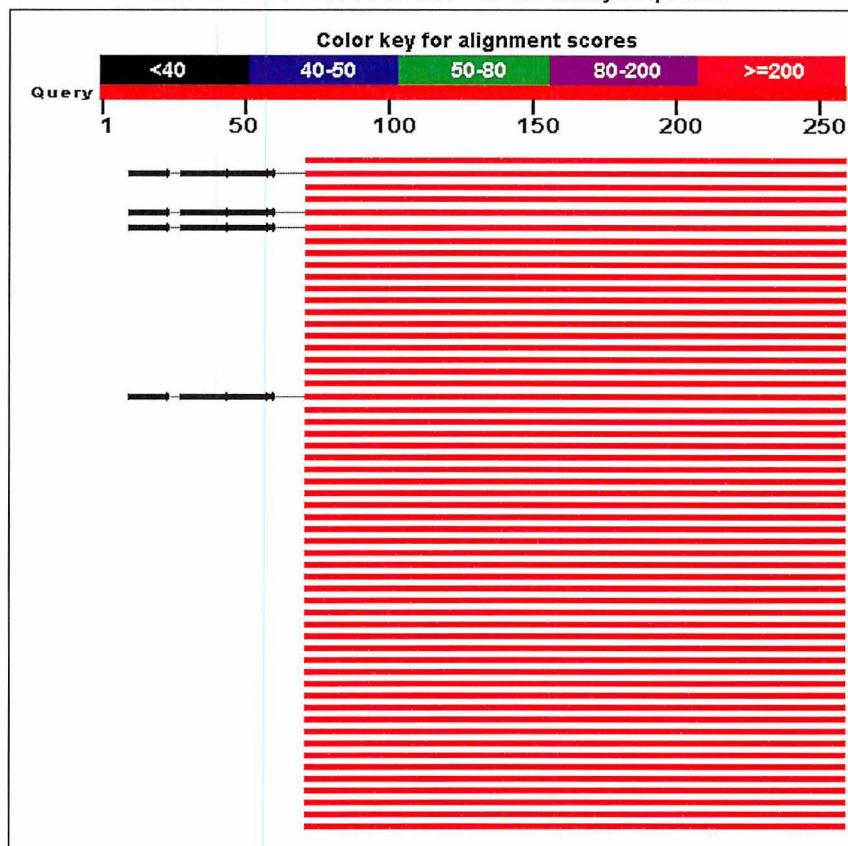
CF398

RID [YGA9EHBN014](#) (Expires on 08-12 10:23 am)
Query ID Icl|25279
Description None
Molecule type nucleic acid
Query Length 258

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.2.29+

Graphic Summary

Distribution of 220 Blast Hits on the Query Sequence



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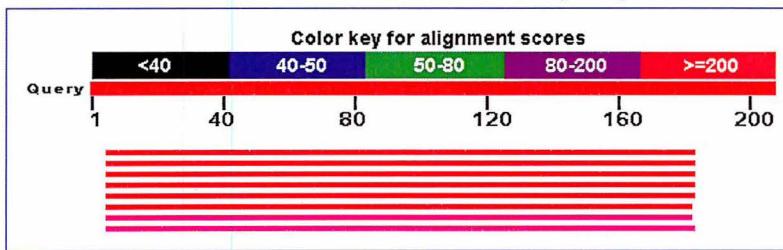
CF0544

Query ID lcl|18917
Description None
Molecule type nucleic acid
Query Length 207

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.2.27+

Graphic Summary

Distribution of 8 Blast Hits on the Query Sequence



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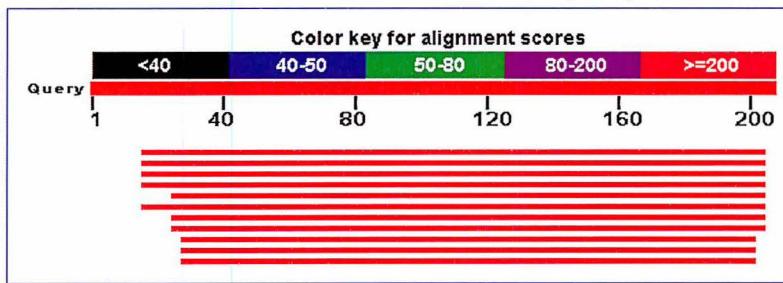
CF0618

Query ID Icl|18593
Description None
Molecule type nucleic acid
Query Length 208

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.2.27+

Graphic Summary

Distribution of 11 Blast Hits on the Query Sequence



BLAST Results

CF275

RID [GVHMTSGK01R](#) (Expires on 04-14 12:10 pm)

Query ID lcl|Query_213699

Description CF275

Molecule type nucleic acid

Query Length 207

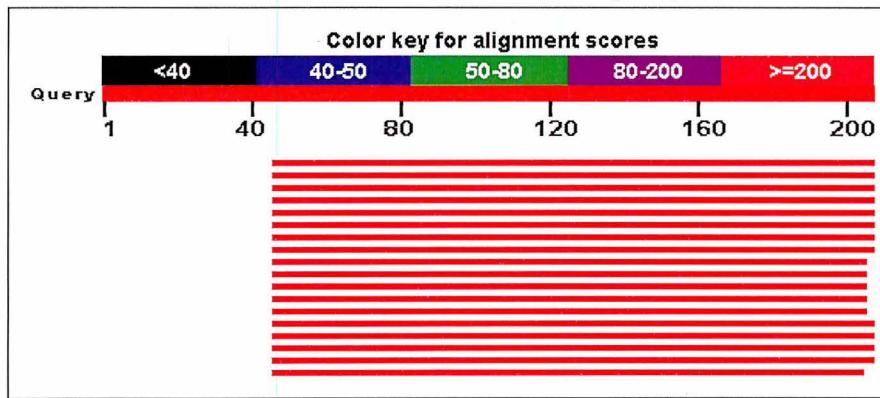
Database Name nr

Description Nucleotide collection (nt)

Program BLASTN 2.3.1+

[Graphic Summary](#)

Distribution of 18 Blast Hits on the Query Sequence



BLAST Results

CF133

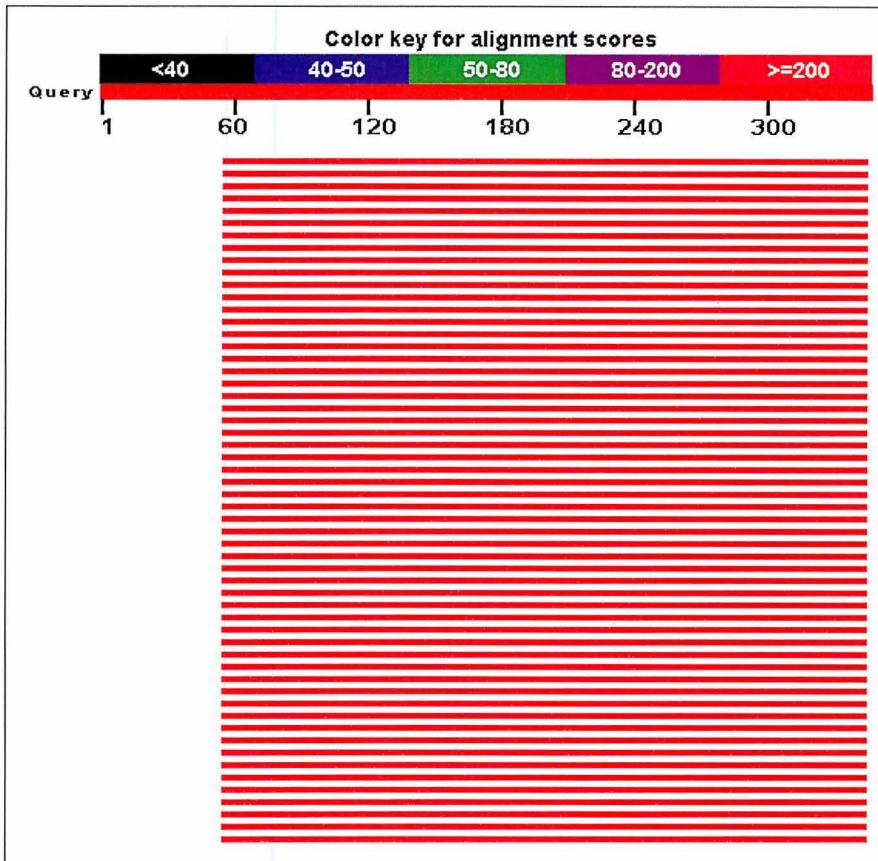
RID [GVHFPXEX01R](#) (Expires on 04-14 12:07 pm)

Query ID Icl|Query_181927
Description CF133
Molecule type nucleic acid
Query Length 348

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.3.1+

[Graphic Summary](#)

Distribution of 100 Blast Hits on the Query Sequence



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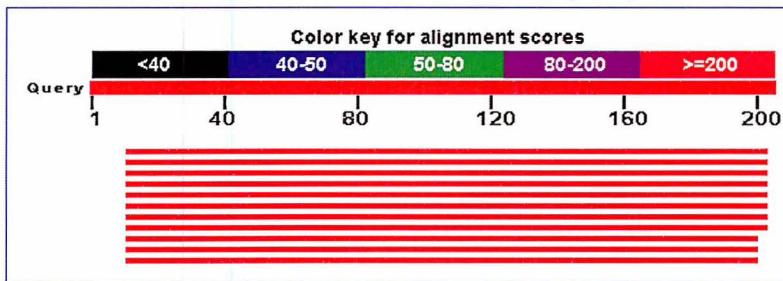
CF0897

Query ID Icl|40837
Description None
Molecule type nucleic acid
Query Length 206

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.2.27+

Graphic Summary

Distribution of 11 Blast Hits on the Query Sequence



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NCBI/ BLAST/ blastn suite/ Formatting Results - G3PN8FW8013
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CF0975

Query ID Icl|64927
Description None
Molecule type nucleic acid
Query Length 165

Database Name nr
Description Nucleotide collection (nt)
Program BLASTN 2.2.27+

Graphic Summary

Distribution of 11 Blast Hits on the Query Sequence

