



>lcl|2603880145.Ga0057381_117 Staphylococcus aureus DAR5874 : Ga0057381_117

Length=41003

Score = 893 bits (483), Expect = 0.0
 Identities = 491/494 (99%), Gaps = 3/494 (1%)
 Strand=Plus/Plus

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Query 1 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 60
Sbjct 38862 GATGAAACCTGGCGGCCGTCCATAATCATGCAACTCGAGCAAACAGCAGAACCTTGCCT 38912
Query 61 CCTCTGATGTTAGCGGCCGAGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 120
Sbjct 38922 CCTCTGATGTTAGCGGCCGAGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 38981
Query 121 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 180
Sbjct 38982 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 39041
Query 181 GAAAGACGCTCTTGCCTCTACCTATACTAGTGATCCGGCTGATCTAGCTAGTGTAAGG 240
Sbjct 39042 GAAAGACGCTCTTGCCTCTACCTATACTAGTGATCCGGCTGATCTAGCTAGTGTAAGG 39101
Query 241 TAAACGCTTACCAACGGCACAGTCGATCATACCGCAGCTTCCGGCTGAGAGGTTGATCCGG 300
Sbjct 39102 TAAACGCTTACCAACGGCACAGTCGATCATACCGCAGCTTCCGGCTGAGAGGTTGATCCGG 39161
Query 301 ACTGAGACACCGCTCCGAGCTTACCGGAGCAGCTTCCGGCTGAGAGGAACTTCCGGCTATGGCC 360
Sbjct 39162 ACTGAGACACCGCTCCGAGCTTACCGGAGCAGCTTCCGGCTGAGAGGAACTTCCGGCTATGGCC 39221
Query 361 AAAGCCCTGACGGACACGGCCCGCTTCCGGCTGAGTGAAAGGCTTTGGATCTGCTAAACCTTCTGG 420
Sbjct 39222 AAAGCCCTGACGGACACGGCCCGCTTCCGGCTGAGTGAAAGGCTTTGGATCTGCTAAACCTTCTGG 39281
Query 421 ATTAGGGAAAGACATGAGCTGTAAGTAACTGTCACATCTGGACGGTACCTTAATCAGAAA 480
Sbjct 39282 ATTAGGGAAAGACATGAGCTGTAAGTAACTGTCACATCTGGACGGTACCTTAATCAGAAA 39339
Query 481 AGCCACCGGCTAAC 494
Sbjct 39340 AGCCACCGG-CTAAC 39352
```

B

>lcl|2588253784_JHTU01000030 Staphylococcus aureus aureus CO-98 : JHTU01000030

Length=2215

Score = 929 bits (503), Expect = 0.0
 Identities = 508/510 (99%), Gaps = 2/510 (0%)
 Strand=Plus/Minus

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Query 1 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 60
Sbjct 1847 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 1788
Query 61 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 120
Sbjct 1787 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 1728
Query 121 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 180
Sbjct 1727 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 1668
Query 181 GAAAGATGGTTTCTGCTATCATCTATAGTGACGGACCCGGCTGAGTAACTGAGTGGTAAGG 240
Sbjct 1667 GAAAGATGGTTTCTGCTATCATCTATAGTGACGGACCCGGCTGAGTAACTGAGTGGTAAGG 1608
otu2247
Query 241 TAACGCTTACCAACGGCACAGTCGATCGAGCCGACCTTGAGGGTGTATCGGCCAACCTGG 300
Sbjct 1607 TAACGCTTACCAACGGCACAGTCGATCGAGCCGACCTTGAGGGTGTATCGGCCAACCTGG 1548
Query 301 ACTGAGACACCGCTCCGAGCTTACCGGAGCACAGCTTCCGGCTTCCCGCAATGGCC 360
Sbjct 1547 ACTGAGACACCGCTCCGAGCTTACCGGAGCACAGCTTCCGGCTTCCCGCAATGGCC 1488
Query 361 AAAGCCCTGACGGACCAACCGGCCGTGAGTGAAAGGCTCTGGATCTGCTAAACCTCTGG 420
Sbjct 1487 AAAGCCCTGACGGACCAACCGGCCGTGAGTGAAAGGCTCTGGATCTGCTAAACCTCTGG 1428
Query 421 ATTAGGGAAAGACATCTGGTAAAGTAACTGACCGCTTGGACGGTACCTAATCAGAAA 480
Sbjct 1427 ATTAGGGAAAGACATCTGGTAAAGTAACTGACCGCTTGGACGGTACCTAATCAGAAA 1369
Query 481 GCCACGGGCTAACAGTCGCCCCAGGCC 510
Sbjct 1368 GCCACGG-CTAACAGTCGCCCCAGGCC 1340
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C

>lcl|2582580999_JFOJ01000060 Staphylococcus haemolyticus RIT283 : JFOJ01000060

Length=1708

Score = 929 bits (503), Expect = 0.0
 Identities = 508/510 (99%), Gaps = 2/510 (0%)
 Strand=Plus/Plus

```
Query 1 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 60
Sbjct 137 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 196
Query 61 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 120
Sbjct 197 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 256
Query 121 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 180
Sbjct 257 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 316
Query 181 GAAAGATGGTTTCTGCTATCATCTATAGTGACGGACCCGGCTGAGTAACTGAGTGGTAAGG 240
Sbjct 317 GAAAGATGGTTTCTGCTATCATCTATAGTGACGGACCCGGCTGAGTAACTGAGTGGTAAGG 376
Query 241 TAACGCTTACCAACGGCACAGTCGATCGCCGACCTTGAGGGTGTATCGGCCAACCTGG 300
Sbjct 377 TAACGCTTACCAACGGCACAGTCGATCGCCGACCTTGAGGGTGTATCGGCCAACCTGG 436
Query 301 ACTGAGACACCGCTCCGAGCTTACCGGAGCACAGCTTCCGGCTTCCCGCAATGGCC 360
Sbjct 437 ACTGAGACACCGCTCCGAGCTTACCGGAGCACAGCTTCCGGCTTCCCGCAATGGCC 496
Query 361 AAAGCCCTGACGGACCAACGGCCCGTGTGAGTGAAAGGCTCTGGATCTGCTAAACCTCTGG 420
Sbjct 497 AAAGCCCTGACGGACCAACGGCCCGTGTGAGTGAAAGGCTCTGGATCTGCTAAACCTCTGG 556
Query 421 ATTAGGGAAAGACATCTGGTAAAGTAACTGACCGCTTGGACGGTACCTAATCAGAAA 480
Sbjct 557 ATTAGGGAAAGACATCTGGTAAAGTAACTGACCGCTTGGACGGTACCTAATCAGAAA 615
Query 481 GCCACGGCTAACAGTCGCCCCAGGCC 510
Sbjct 616 GCCACGG-CTAACAGTCGCCCCAGGCC 644
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C

otu6527
 >lcl|2597490210_Ga0058823_gi672710284_5 Staphylococcus epidermidis PM221 : Ga0058823_gi672710284_5

Length=249012

Score = 606 bits (328), Expect = 8e-170
 Identities = 328/328 (100%), Gaps = 0/328 (0%)
 Strand=Plus/Minus

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Query 1 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 60
Sbjct 1579683 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 1579624
Query 61 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 120
Sbjct 1579623 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 1579564
Query 121 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 180
Sbjct 1579563 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 1579504
Query 181 GAAAGACGCTTTCGCTCTACTTATAGTGATCTGGCCGCCCATTTAGCTGAGTGGTAAGG 240
Sbjct 1579503 GAAAGACGCTTTCGCTCTACTTATAGTGATCTGGCCGCCCATTTAGCTGAGTGGTAAGG 1579444
Query 241 TAACGCTTACCAACGGAAACATGGCTAGCCGACCTGAGAGGTTGATCGGCCAACCTOGA 300
Sbjct 1579443 TAACGCTTACCAACGGAAACATGGCTAGCCGACCTGAGAGGTTGATCGGCCAACCTOGA 1579384
Query 301 ACTGAGACACGGTCAAGCTTACCGG 328
Sbjct 1579383 ACTGAGACACGGTCAAGCTTACCGG 1579356
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D

>lcl|2568526371_JBVX01000055 Staphylococcus aureus M0026 : JBVX01000055

Length=4321

Score = 606 bits (328), Expect = 8e-170
 Identities = 328/328 (100%), Gaps = 0/328 (0%)
 Strand=Plus/Minus

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Query 1 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 60
Sbjct 3890 GATGAAACCTGGCGGCCGTCCATAATCATGCAAGTCGAGCAAACAGCAGAACCTTGCCT 3831
Query 61 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 120
Sbjct 3830 CCTCTGACCTTACCGGCCGAGCGCTGGTGAAGTAACACCTGGATAACCTTACCTATAAGACTGG 3771
Query 121 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 180
Sbjct 3770 ATAACCTTCCGGAAAACCGGAGCTAATACCGGATAATACTGGATAACCTTACCTATAAGACTGG 3711
Query 181 GAAAGACGCTTTCGCTCTACTTATAGTGATCTGGCCGCCCATTTAGCTGAGTGGTAAGG 240
Sbjct 3710 GAAAGACGCTTTCGCTCTACTTATAGTGATCTGGCCGCCCATTTAGCTGAGTGGTAAGG 3651
Query 241 TAACGCTTACCAACGGCACAGTCGATCGCCGACCTGAGGGTGTATCGGCCAACACTOGA 300
Sbjct 3650 TAACGCTTACCAACGGCACAGTCGATCGCCGACCTGAGGGTGTATCGGCCAACACTOGA 3591
Query 301 ACTGAGACACGGTCAAGCTTACCGG 328
Sbjct 3590 ACTGAGACACGGTCAAGCTTACCGG 3563
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D

Supplementary Fig. 3. Species analysis of *Staphylococcus* genus. (A) Most of the *Staphylococcal* genus in AD patients were *S. aureus*, with a minority being *S. haemolyticus* and *S. epidermidis*. (B) Identification of OTU7176 as *Staphylococcus aureus*. (C) Identification of OTU2247 as *Staphylococcus haemolyticus*. (D) Identification of OTU6527 as *Staphylococcus epidermidis*. AD, atopic dermatitis; OTU, Operational Taxonomy Unit.