Appendix C

Appendix C shows the text alignments for all alignments performed using CLUSTAL. Results are shown for each of the three positive GSL samples compared to the expected amplicon sequences and control sample amplicon sequences for each filarial species.

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CLUSTAL O(1.2.4) multiple sequence alignment


A.odend_synthetic      CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGGAAAGTTACGATAGATTGTACTCT     60
A.odendhali_28S        CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGGAAAGTTACGATAGATTGTACTCT     60
A.viteae_28S           CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGAAGAGTTACGATAGATTGTACTTT     60
A.vit_synthetic        ------CATAGAAGGTGCTAGACCTGTACGGGTGAGAAGAGTTACGATAGATTGTACTTT     54
D.rep_synthetic        ----TCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTATGGTAGATTATACTTT     56
D.repens_28S           -CAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTATGGTAGATTATACTTT     59
D.imm_synthetic        ------------------------------GGTGAAAAAAGTTACGATATGTTATACTTT     30
D.immitis_28S          -CAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTACGATATGTTATACTTT     59
G9_amplicon            CTAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTACGATATGTTATACTTT     60
                                                     *****  * ***** * **  ** **** *

A.odend_synthetic      GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     120
A.odendhali_28S        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     120
A.viteae_28S           GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     120
A.vit_synthetic        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     114
D.rep_synthetic        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     116
D.repens_28S           GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     119
D.imm_synthetic        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     90
D.immitis_28S          GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     119
G9_amplicon            GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     120
                       ************************************************************

A.odend_synthetic      TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 157
A.odendhali_28S        TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 157
A.viteae_28S           TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 157
A.vit_synthetic        TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 151
D.rep_synthetic        TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 153
D.repens_28S           TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 156
D.imm_synthetic        TATGACCACGAGACCGATAGCAAACAAGTACCGTGAGAAT 130
D.immitis_28S          TATGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 156
G9_amplicon            TATGACCACGAGACCGATAGCAAACAAGTACCGTGAGA-- 158
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CLUSTAL O(1.2.4) multiple sequence alignment


Aodend           CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGGAAAGTTACGATAGATTGTACTCT   60
A.odendhali      CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGGAAAGTTACGATAGATTGTACTCT   60
A.vit            ------CATAGAAGGTGCTAGACCTGTACGGGTGAGAAGAGTTACGATAGATTGTACTTT   54
A.viteae         CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGAAGAGTTACGATAGATTGTACTTT   60
D.rep            ----TCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTATGGTAGATTATACTTT   56
D.repens         -CAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTATGGTAGATTATACTTT   59
D.imm            ------------------------------GGTGAAAAAAGTTACGATATGTTATACTTT   30
G16              CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTACGATATGTTATACTTT   60
D.immitis        -CAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTACGATATGTTATACTTT   59
                                               *****  * ***** * **  ** **** *

Aodend           GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   120
A.odendhali      GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   120
A.vit            GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   114
A.viteae         GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   120
D.rep            GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   116
D.repens         GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   119
D.imm            GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   90
G16              GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   120
D.immitis        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA   119
                 ************************************************************

Aodend           TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG---       157
A.odendhali      TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG---       157
A.vit            TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG---       151
A.viteae         TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG---       157
D.rep            TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG---       153
D.repens         TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG---       156
D.imm            TATGACCACGAGACCGATAGCAAACAAGTACCGTGAGAAT       130
G16              TATGACCACGAGACCGATAGCAAACAAGTACCGTGAGA--       158
D.immitis        TATGACCACGAGACCGATAGCAAACAAGTACCGTGAG---       156
                 ** *********************************
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CLUSTAL O(1.2.4) multiple sequence alignment


A.odend_synthetic      CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGGAAAGTTACGATAGATTGTACTCT     60
A.odendhali_28S        CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGGAAAGTTACGATAGATTGTACTCT     60
A.viteae_28S           CCAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAGAAGAGTTACGATAGATTGTACTTT     60
A.vit_synthetic        ------CATAGAAGGTGCTAGACCTGTACGGGTGAGAAGAGTTACGATAGATTGTACTTT     54
D.rep_synthetic        ----TCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTATGGTAGATTATACTTT     56
D.repens_28S           -CAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTATGGTAGATTATACTTT     59
G17_amplicon           -CAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTATGGTAGATTATACTTT     59
D.immitis_28S          -CAGTCCATAGAAGGTGCTAGACCTGTACGGGTGAAAAAAGTTACGATATGTTATACTTT     59
D.imm_synthetic        ------------------------------GGTGAAAAAAGTTACGATATGTTATACTTT     30
                                                     *****  * ***** * **  ** **** *

A.odend_synthetic      GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     120
A.odendhali_28S        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     120
A.viteae_28S           GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     120
A.vit_synthetic        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     114
D.rep_synthetic        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     116
D.repens_28S           GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     119
G17_amplicon           GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     119
D.immitis_28S          GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     119
D.imm_synthetic        GGAGTCGGGTTGTTTGAGATTGCAGCCCAAAGAGGGTGGTAAACCTCATCTAAGGCTAAA     90
                       ************************************************************

A.odend_synthetic      TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 157
A.odendhali_28S        TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 157
A.viteae_28S           TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 157
A.vit_synthetic        TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 151
D.rep_synthetic        TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 153
D.repens_28S           TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 156
G17_amplicon           TACGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 156
D.immitis_28S          TATGACCACGAGACCGATAGCAAACAAGTACCGTGAG--- 156
D.imm_synthetic        TATGACCACGAGACCGATAGCAAACAAGTACCGTGAGAAT 130
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