



## **APPENDICES**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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**Appendix A** Nucleotide sequence (430 bp) of *Colletotrichum gloeosporioides* from the rDNA ITS region by cycle sequencing with CgInt and ITS4 primers.

No. Isolate code	Nucleotide sequence (430 bp)
1. CKT_L044	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA
2. CAN_F095	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA
3. CAN_F125	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA
4. CAN_F146	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA
5. CAN_L080	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA
6. CAN_L105	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA
7. FL_F003	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA
8. FL_F066	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGACTCTTGGCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATATTTAA

## Appendix A Continued

No. Isolate code	Nucleotide sequence (430 bp)
9. FL_L079	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
10. K_F103	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
11. K_L120	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
12. KSW_L062	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
13. KSW_L085	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
14. KMK_F135	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
15. KMK_L058	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
16. KMK_L088	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA

## Appendix A Continued

No. Isolate code	Nucleotide sequence (430 bp)
17. LNG_L031	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA
18. MCN_L056	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA
19. MCN_L059	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA
20. MCN_L070	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA
21. MCN_L121	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA
22. MKS_L086	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA
23. NDM_F002	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA
24. NDM_F006	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAA

## Appendix A Continued

No. Isolate code	Nucleotide sequence (430 bp)
25. NDM_F012	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
26. NDM_F014	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
27. NDM_F018	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
28. NDM_F026	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
29. NDM_F027	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
30. NDM_F038	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
31. NDM_F061	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
32. NDM_F063	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA

## Appendix A Continued

No. Isolate code	Nucleotide sequence (430 bp)
33. NDM_F106	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
34. NDM_F110	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
35. NDM_F116	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
36. NDM_F118	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
37. NDM_F130	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
38. NDM_L057	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
39. NDM_L067	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
40. NDM_L068	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA

## Appendix A Continued

No. Isolate code	Nucleotide sequence (430 bp)
41. NDM_L071	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
42. NDM_L078	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
43. NDM_L096	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
44. NLR_L047	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
45. NLR_L048	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
46. OR_F126	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
47. OR_L040	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA
48. BPL_F033	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTTAAA

## Appendix A Continued

No. Isolate code	Nucleotide sequence (430 bp)
49. BPL_F076	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
50. BPL_F102	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
51. BPL_F131	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
52. PS_F114	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
53. PS_L032	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
54. PS_L082	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
55. R_L087	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA
56. SLY_L017	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAAACTTTTAAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTC TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATATTTAA



## Appendix A Continued

No. Isolate code	Nucleotide sequence (430 bp)
57. TLN_L060	GCGCCGCCGGGAGATACCAACTCTGATTTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACCTTTTAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTAA
58. TLN_L065	GCGCCGCCGGGAGATACCAACTCTGATGTACGACGTTTCTTCTGAGTGGTACAAGCAAATAA TCAAACCTTTTAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGA TAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGC CAGCATTCTGGCGGGCATGCCTGTTCGAGCGTCATTTCAACCCTCAAGCTCTGCTTGGTGTT GGGCCCTACAGCTGATGTAGGCCCTCAAAGGTAGTGGCGGACCCCTCCCGGAGCCTCCTTTG CGTAGTAACCTTTACGTCTCGCACTGGGATCCGGAGGGACTCTTGCCGTAAAACCCCAATTT TCCAAAGGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACCTAAGCATATATTAA