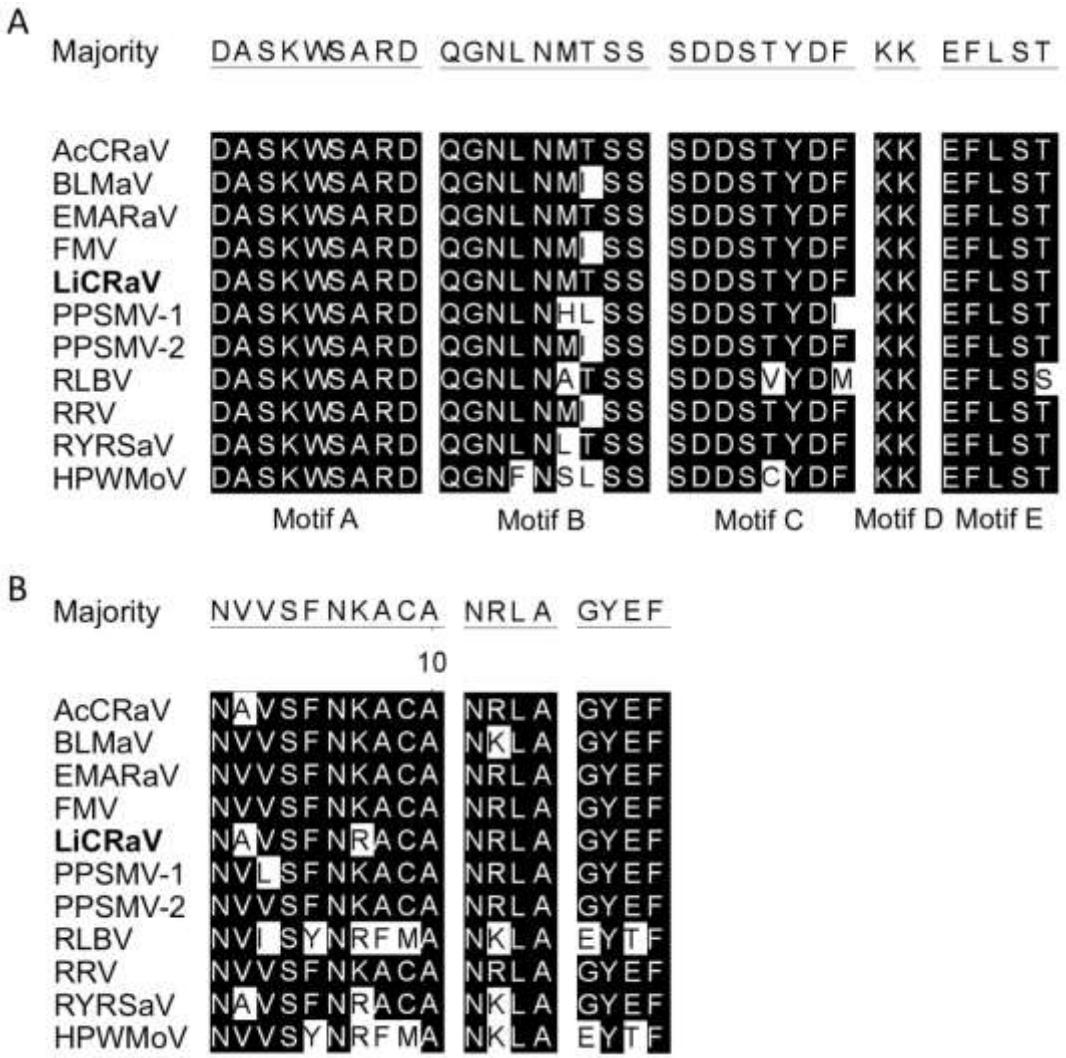
Appendix A. Primers used in this study

No.	Primer	Sequence（5' to 3'）	Brief description
1	RNA1-F1	GCTCTCCCTATACACTCTAATCAAC	RNA1 amplicons
2	RNA1-R1	CTTGACTATAGGGATATAGATACTTGGC	
3	RNA1-F2	GATGAACTTGGTTCTTATATGCCTAC	
4	RNA1-R2	CAGCCTGTTAACATCCAATGAG	
5	RNA1-F3	CTTGGAATCTATCATTCCCATACAG	
6	RNA1-R3	CCACATCATCTATTTCAGATTCATCG	
7	RNA1-F4	CCAAAGAACATGGATGTGATCATG	
8	RNA1-R4	CATCAGAGTGAACCATAGTTGTC	
9	RNA1-F5	GGCTATGTTACATGTTACTGCTG	
10	RNA1-R5	GATTTGATTAACACAGGGTCTTTAGG	
11	RNA1-F6	GACTTGTGCAGTTAATCCCATG	
12	RNA1-R6	GTTGCTACTTTGATTCGATAACCC	
13	RNA1-F7	GATGACTACTGGCTTGGTAGATTTG	
14	RNA1-R7	CTGGATGAATTAGCATATAATGCTTC	
15	RNA1-F8	CTCTGCATATATGGGACCAGG	RNA1 amplicon and detection
16	RNA1-R8	ATCTCCCTATACTTATTCAGTCAACAATC	
17	RNA2-F1	CACTGCACGTACATTATGTGTTC	RNA2 amplicons
18	RNA2-R1	GATCGTTGCAGTTGTTGATACAC	
19	RNA2-F2	CTGATGGCTGTATCAAACAGTTTG	
20	RNA2-R2	CATTGGAAGGCTTTAAATCAAATTGTC	
21	RNA2-F3	CGTAAATTTGAGTTTTATGCAGACATC	RNA2 amplicon and detection
22	RNA2-R3	GATGCTTGGAAGCACTCAAAC	
23	RNA3-F1	GACCACCGAGATCTACACTAC	RNA3 amplicon
24	RNA3-R1	GTTCAACAGCATCCTCATTTCTC	
25	RNA3-F2	CTCTTGTATCAAAAATGAACAGAAGG	RNA3 amplicon and detection
26	RNA3-R2	CAAATCAACCGAAAATTTCGG	
28	RNA4-F1	CAACGTATAGACACAAATTCTCCTTAC	RNA4 amplicon
29	RNA4-R1	CTTAGATTTCATGTCAATCTTGAGC	
30	RNA4-F2	CTATAGGGAGTGATGGAGCTG	RNA4 amplicon and detection
31	RNA4-R2	GTTCTCCTTACAATTGTTCACTCAATC	
32	RNA5-F1	CTTGTCAAAATACGTAGAGTTGATAC	RNA5 amplicon
33	RNA5-R1	GCCTAATTAACTGAACAGATGATTCAC	
34	RNA5-F2	GATGATGATCTTGAAGGGACTTC	RNA5 amplicon and detection
35	RNA5-R2	GTCGATTGTGTTGAAATTGTATCAAAG	
36	RNA1-3'GSP1-6190	GGTAGATTGGCTAGACCTCATGATAGTG	3' RACE of RNA1
37	RNA1-3'GSP2-6486	CTCTGCATATATGGGACCAGGC	
38	RNA1-3'GSP3-6677	GGTTGGCTAATGGTAAGCTTATATCTGG	
39	RNA2-3'GSP1-1769	GCCTTCCAATGAAGCGTCAATCTAC	3' RACE of RNA2
40	RNA2-3'GSP2-2051	GATCGTCGGTCCACCAGACC	

41	RNA2-3'GSP3-2187	CGAGAAGTTACGCTGATAATGCCTAG	
42	RNA3-3'GSP1-842	GGTGAGGCTTGAGTGTCGAAAG	3' RACE of RNA3
43	RNA3-3'GSP2-1029	GGGACTACTGGCAGAGAAATGAG	
44	RNA3-3'GSP3-1274	GTGTGAATTTCAGTAGTTTGAGATGG	
45	RNA4-3'GSP1-981	CTAGGTAAGCTTGTTGTTGATGCAG	3' RACE of RNA4
46	RNA4-3'GSP2-1090	CTAGGGATATCGCTGAGATCAATGC	
47	RNA4-3'GSP3-1219	CTGATTCAGGTAATTTACCACCAGCTG	
48	RNA5-3'GSP1-640	GAGGTTGACATTCCATTCTGATGATG	3' RACE of RNA5
49	RNA5-3'GSP2-1174	GTCCAATTACCATCGATACGTACAAAC	
50	RNA5-3'GSP3-1257	CAAAGGGATAACACTACTGAACTCCC	
51	RNA1-5'GSP1-734	GGCATCTGTGTGTATTTATCCCTGAG	5' RACE of RNA1
52	RNA1-5'GSP2-457	GAGTCAGTATGCTGTTGATGCTTGG	
53	RNA2-5'GSP1-897	CAGTGACTGAATGCTCTACAGGC	5' RACE of RNA2
54	RNA2-'5'GSP2-620	CAGTGGTTTAGGGCAATCAATATGGC	
55	RNA3-5'GSP1-746	CATCTGTCCAGCCAATCTGTTGAC	5' RACE of RNA3
56	RNA3-5'GSP2-519	GCTCAACAATTCCTTCACGAACCAC	
57	RNA4-5'GSP1-745	GCTCCATCACTCCCTATAGTCTTCC	5' RACE of RNA4
58	RNA4-5'GSP2-563	CAATTTCCCAGGAATTGAATCTCGC	
59	RNA5-5'GSP1-676	CCCTTCAAGATCATCATCAGAATGG	5' RACE of RNA5
60	RNA5-5'GSP2-381	CCATGTTGCCGAAATAGAGGTTCC	
61	Adapter1	CCAGTGAGCAGAGTGACGAGG	5' RACE adaptor
62	Adapter2	GACGAGGACTCGAGCTCAAGC	
63	RNA1-F-FL	AGTAGTGAACTCCCTATACACTCTAATC	RNA1 full length
64	RNA1-R-FL	ATCTCCCTATACTTATTCAGTCAACAATC	
65	RNA2-F-FL	AGTAGTGAACTCCTCAAACTGAA	RNA2 full length
66	RNA2-R-FL	GTAGTGTTCTCCTCAAACAAAATTC	
67	RNA3-F-FL	TTAGTAGTGAACTCCCATTAGTCAAATC	RNA3 full length
68	RNA3-R-FL	CAAATCAACCGAAAATTTCGG	
69	RNA4-F-FL	AGTAGTGAACTCCTTACAATAGCAAAC	RNA4 full length
70	RNA4-R-FL	GTTCTCCTTACAATTGTTCACTCAATC	
71	RNA5-F-FL	AGTAGTGAACTCCCTTTGATACAATTTC	RNA5 full length
72	RNA5-R-FL	GTCGATTGTGTTGAAATTGTATCAAAG	



Appendix B Amino acid alignment of five conserved RdRp motifs of LiCRaV and other emaraviruses (A) and multiple alignment of three predicted conserved nucleocapsid motifs of LiCRaV and other emaraviruses (B).