

Supplementary Table 1: Nucleotide identity matrix based on partial S1 gene sequences from seventeen IBV isolates and the most related reference sequences. The reference sequences are shown in bold font. Sequences with 100% identity are not shown, including the following: SA/IH9/13, SA/IH11/13, SA/IH12/13, SA/IH15/13, SA/IH16/13, SA/IC10/13, SA/IC71/13, SA/IC78/13 and SA/IC80/13 resembling SA/IH7/12; SA/IH19/13, SA/IH25/13, SA/IH26/13, SA/IH27/13, SA/IH28/13, SA/IH29/13, SA/IC7/13 and SA/IC16/13 resembling SA/IH8/12; SA/H21/13, SA/IH22/13, SA/IC3/13, SA/IC24/13 and SA/IC72/13 resembling SA/IH6/12; SA/H14/13 resembling SA/H10/13; and SA/C8/13 and SA/IC9/13 resembling SA/IC6/13.

Seq->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1 Q1 (AF286302)																							
2 SA/IH5/12	99.6																						
3 SA/IH7/12	100	99.6																					
4 SA/IC15/13	99	98.7	99																				
5 4/91 (AF093794)	81.6	81.3	81.6	82.5																			
6 SA/IH3/12	81.3	81	81.3	82.2	99.6																		
7 SA/IH8/12	81.6	81.3	81.6	82.5	100	99.6																	
8 SA/IC14/13	81	80.7	81	81.9	96.9	96.6	96.9																
9 SA/IC62/13	81.9	81.6	81.9	82.8	99	98.7	99	96															
10 SA/IC69/13	82.2	81.9	82.2	83.1	98.1	97.8	98.1	95.7	98.4														
11 H120 Vaccine (M21970)	79.5	79.2	79.5	79.8	77.3	77.3	77.3	77	78.2	77.9													
12 SA/IH6/12	79.5	79.2	79.5	79.8	77.3	77.3	77.3	77	78.2	77.9	100												
13 SA/IH20/13	79.5	79.2	79.5	79.8	77.3	77.3	77.3	77	78.2	77.9	99.6	99.6											
14 SA/IC79/13	78.5	78.2	78.5	78.8	77	76.7	77	76.7	77.9	77.6	97.8	97.8	97.5										
15 Iran/IS720/H140/11 (KP310018)	80.4	80.7	80.4	81	82.2	81.9	82.2	81.3	81.9	82.2	82.2	82.2	81.9	81.3									
16 SA/IC84/13	79.5	79.5	79.5	80.1	81.3	81	81.3	81	81	81.3	81.3	81.3	81	80.4	97.8								
17 SA/IC5/13	80.1	80.4	80.1	80.7	81.9	81.6	81.9	81	81.6	81.9	81.6	81.6	81.3	80.7	99.3	97.8							
18 SA/IC6/13	80.7	81	80.7	81.3	82.2	81.9	82.2	81.3	81.9	82.2	82.2	82.2	81.9	81.3	99	97.5	99						
19 SA/IC84/13	80.1	80.1	80.1	80.7	82.2	81.9	82.2	81.3	81.9	82.2	82.2	82.2	81.9	81.3	98.1	99	98.1	97.8					
20 IS/1494 (EU780077)	83.1	82.8	83.1	83.7	83.1	83.1	83.1	82.8	83.7	83.4	82.8	82.8	82.8	81.3	86.2	86.2	86.2	86.8	86.5				
21 SA/IH1/12	83.1	82.8	83.1	83.7	83.1	83.1	83.1	82.8	83.7	83.4	82.8	82.8	82.8	81.3	86.2	86.2	86.2	86.8	86.5	100			
22 SA/IH31/14	84.4	84	84.4	84.4	82.8	82.8	82.8	82.8	83.4	83.1	81.6	81.6	81.6	80.1	85	85	85	85.6	85.3	97.8	97.8		