

Table S1. Primers used for the amplifications of the full-length genome of IBDV strains

Primers ^a	Primer sequences (5'-3')
A1-F	GGATACGATCGGTCTGACCCCGGGGAGTC
A1-R-fusion	CTTCAGGGGAGAGTTGAGGTC
A2-F-fusion	GACCTCAACTCTCCCCTGAAG
A2-R	GGGGACCCGCGAACGGATCCAATTTGGGAT
B1-F	GGATACGATGGGTCTGACCCTCTGGGA
B1-R-fusion	TCTAGGTCAATTGAGTACCAC
B2-F-fusion	GTGGTACTCAATTGACCTAGA
B2-R	GGGGGCCCCCGCAGGCGAAGGCCGGGGAT

Table S2. Primers were synthesized to introduce the ribozyme structure and unique restriction enzyme (*Hind* III) site in the genome of the recombinant IBDV strains

Primers	Primer sequences (5'-3') ^a
AF01-P5	<u>TGAGGACGAAACTATAGGAAAGGAATTCCTATAGTCGGATACGATCG</u> GTCTGAC
AR01-P6	<u>CGGACCGCGAGGAGGTGGAGATGCCATGCCGACCCGGGGACCCGC</u> GAACGGATC
AF02-P7	<u>CCGGAATTCTGTTAAGCGTCTGATGAGTCCGTGAGGACGAAACTATA</u> <u>GGAAAG</u>
AR02-P8	<u>GAGTGGACGTGCGTCCTCCTTCGGATGCCAGGTCCGACCGCGAGG</u> <u>AGGTGGAG</u>
AR03-P9	<u>CGGGGTACCCGCCCTCCCTTAGCCATCCGAGTGGACGTGCGTCCTCC</u> <u>TTC</u>
BF01-P10	<u>TGAGGACGAAACTATAGGAAAGGAATTCCTATAGTCGGATACGATGG</u> GTCTGAC
BR01-P11	<u>CGGACCGCGAGGAGGTGGAGATGCCATGCCGACCCGGGGGCCCCC</u> GCAGGCGA
BF02-P12	<u>CCGCTCGAGTGTTAAGCGTCTGATGAGTCCGTGAGGACGAAACTATA</u> <u>GGAAAG</u>
BR02-P8	AR02-P8
BR03-P13	<u>CGGGGTACCCGCCCTCCCTTAGCCATCCGAGTGGACGTGCGTCCTCC</u> <u>TTC</u>

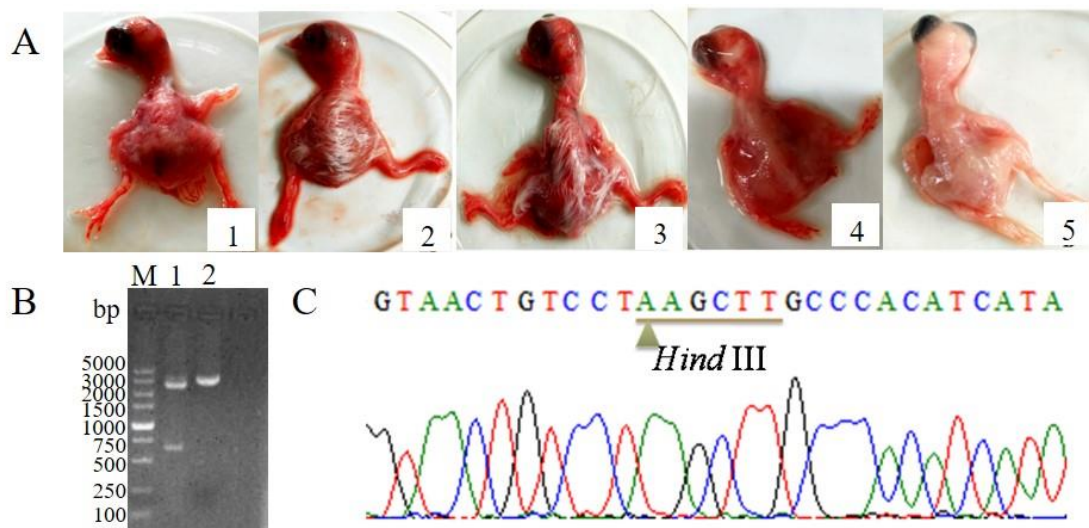


Figure S1. Generation and identification of mosaic viruses. **A**, the pathogenic changes of the SPF chicken embryos inoculated with the recombinant viruses: 1 *rNN1172-B87VP1a*; 2 *rNN1172-B87VP1aΔ4*; 3 *rNN1172-VP1Δ4*; 4 *rNN1172*; 5 The empty plasmid. **B**, The purified PCR products digested by the enzyme (*Hind* III) showed two distinct target segments (2 629bp and 631bp) of the rescued viruses: M markers; 1 The purified PCR products digested by the enzyme (*Hind* III) of the rescued viruses; 2 The purified PCR products digested by the enzyme (*Hind* III) of the wild-type viruses; **C**, The genetic tags (unique restriction enzyme site *Hind* III) were successfully introduced into the segment A used to identify the recombinant viruses.