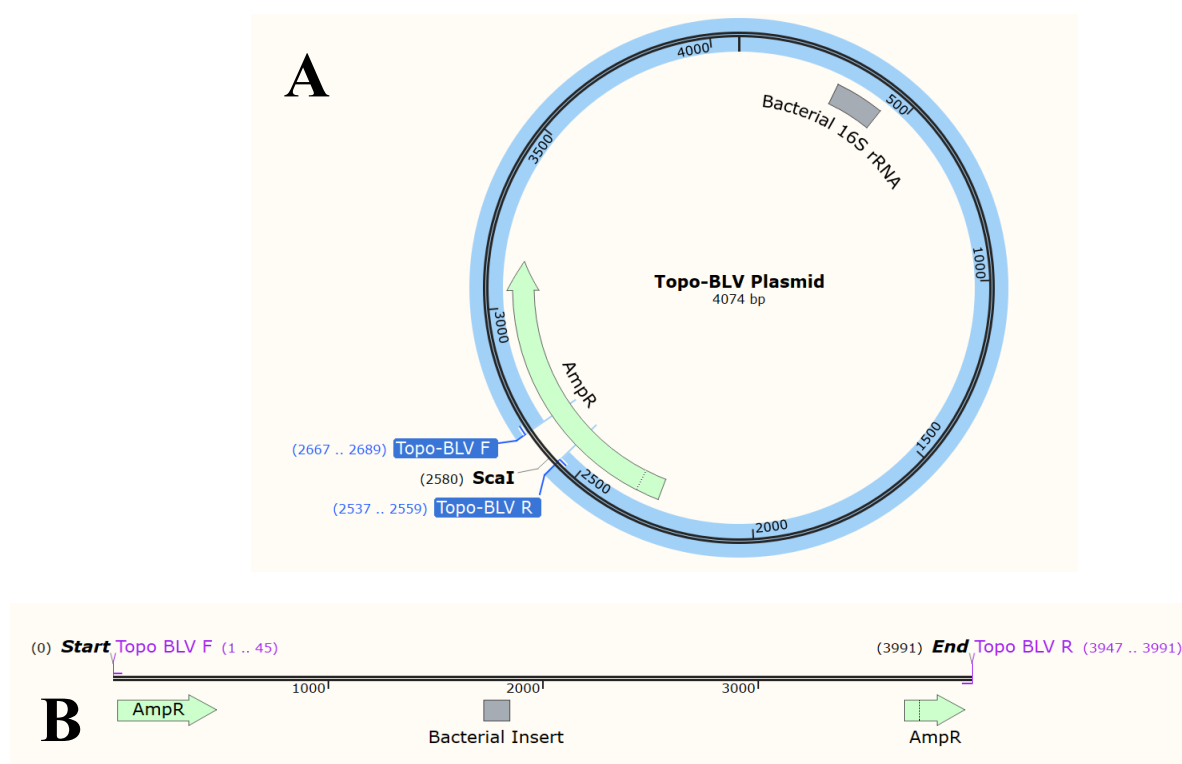


Supplementary Materials:



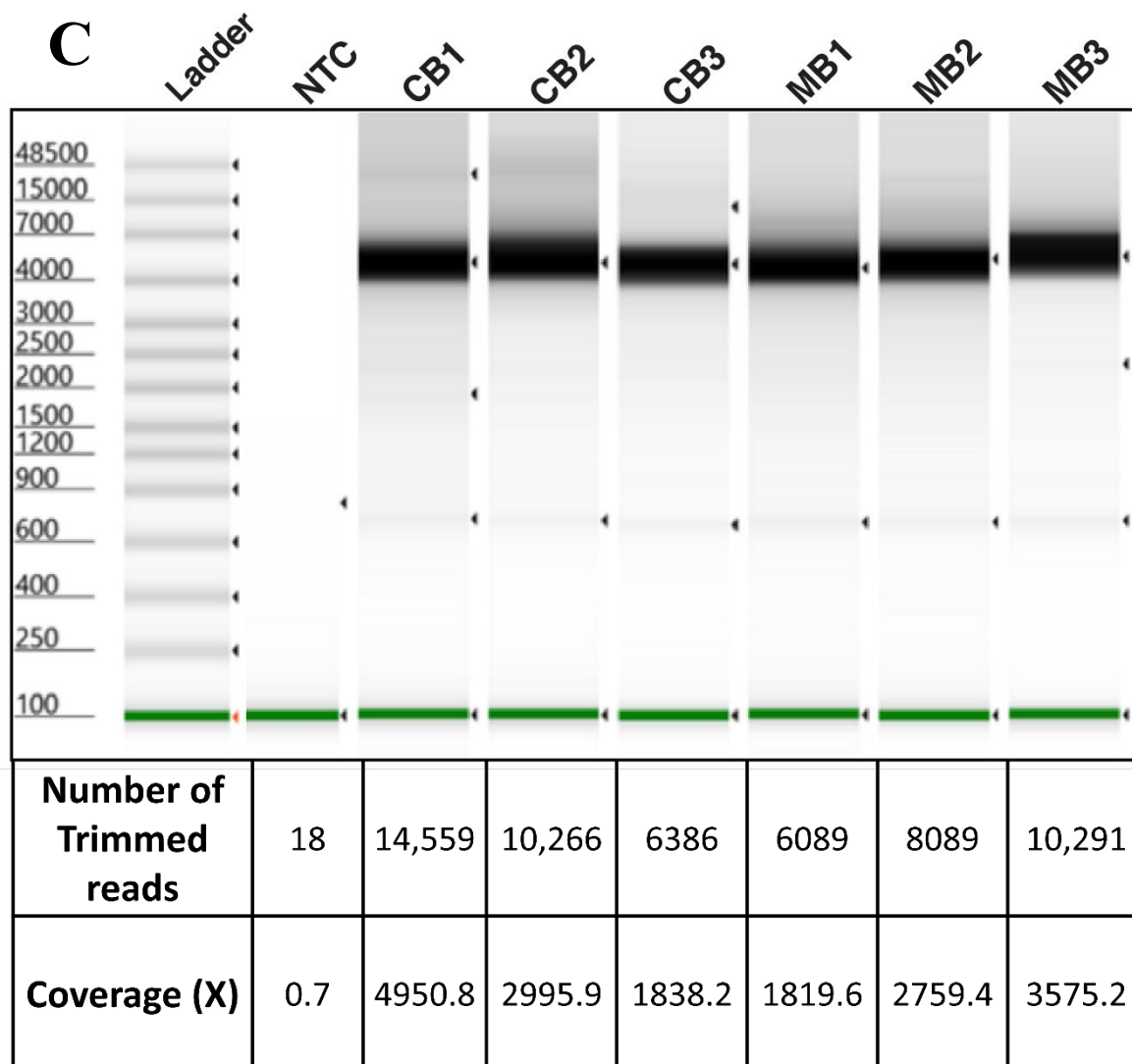


Figure S1: (A): Map of the TOPO® vector used with *Corynebacterium bovis* and *Mycoplasma bovis* inserts. (B): Primary amplicon of Table 1. used as a template for controls. Amplicon contains BLV seed sequence for use as a positive control in the BLV PCR. (C): Electrophoretogram showing the amplification, size, and integrity of TOPO® plasmids encoding the 16s rDNA gene and Thioredoxin gene from two different pathogens, respectively, used for Oxford Nanopore Sequencing. These amplicons were generated using the BLV_CS primers before sequencing. (CB: *Corynebacterium bovis*; MB- *Mycoplasma bovis*; NTC: Non-Template Control). NTC: Non-template Control.

	10	20	30	40	50	60	70	80	90	100	110	120
Consensus	CAKSPRYTLD	SVNGYPKIYW	PPQGRRRFG	ARAMVTYDCE	PRCPYVGADR	FDCPHWDNAS	QADQGSFYVN	HQILFLHLKQ	CHGIFTLTWE	IWGYDPLITF	SLHKIPDPPQ	PDFPQLNSDW
AP019598
Dam 1_CS
Dam 3_CS
Daughter 3_CS
Dam 2_CS
Daughter 2_CS
Dam 6_CS
Dam 7_CS
Daughter 4_CS
Daughter 8_CS
Daughter 1_CS
Daughter 6_CS
Daughter 7_CS
Daughter 5_CS
Dam 5_CS
Dam 4_CS

	130	140	150	160	170	180	190	
Consensus	VPSVRSWALL	LNQTARAFPD	CAICWEPSPP	WAPEILVYNK	TISSSGPGLA	LPDAQIFWVN	TSSFNTTQGW	HHPSQRLL
AP019598
Dam 1_CS
Dam 3_CS
Daughter 3_CS
Dam 2_CS
Daughter 2_CS
Dam 6_CS
Dam 7_CS
Daughter 4_CS
Daughter 8_CS
Daughter 1_CS
Daughter 6_CS
Daughter 7_CS
Daughter 5_CS
Dam 5_CS
Dam 4_CS

Figure S2. Amino acid alignment of the ENV protein showing 100% identity between the animals studied. Only sequences derived from BLV amplicons generated by CentralStar Laboratories were used for this analysis. AP019598 is the Genbank accession number of the reference genome used for comparison.