Development of Differentiating Infected from Vaccinated Animals (DIVA) Real-Time PCR for African Horse Sickness Virus Serotype 1
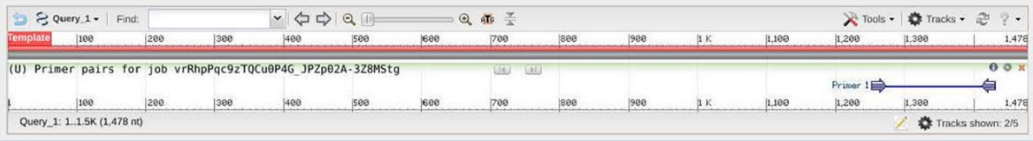
Appendix

Appendix Figure 1. Summary of alignment plots of primers or probes to the vaccine (AHSV-1, AHSV-3 and AHSV-4) and outbreak (ThailandAHSV1) strains. These are made available from the Primer-BLAST and BLAST Global Alignment (dot plots) programs. A) Primer VP5-DIVA-P1 vs ThailandAHSV1 by Primer-BLAST; B) Primer VP5-DIVA-P1 vs ThailandAHSV1 by BLAST Global Alignment by the Needleman-Wunsch algorithm; C) VP5-DIVA-P2 vs ThailandAHSV1 by BLAST Global Alignment by the Needleman-Wunsch algorithm.

A

Primer-BLAST Results

Input PCR template KT030334_AHSV1_OBP_VP5

Range 1 - 1564

Specificity of primers Primer pairs are specific to input template as no other targets were found in selected database: Refseq mRNA (Organism limited to Homo sapiens)

Other reports ▷ Search Summary
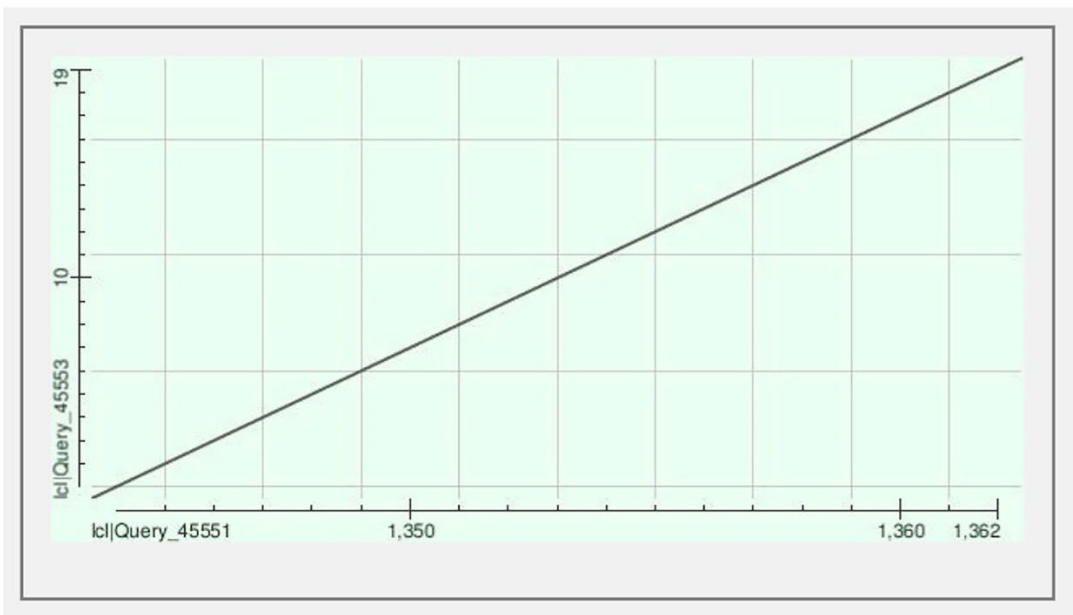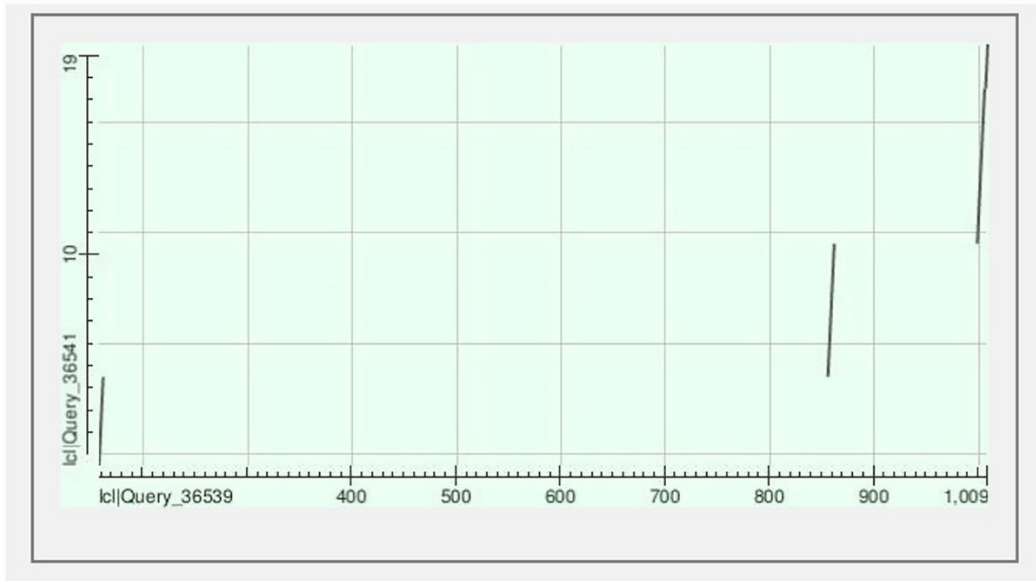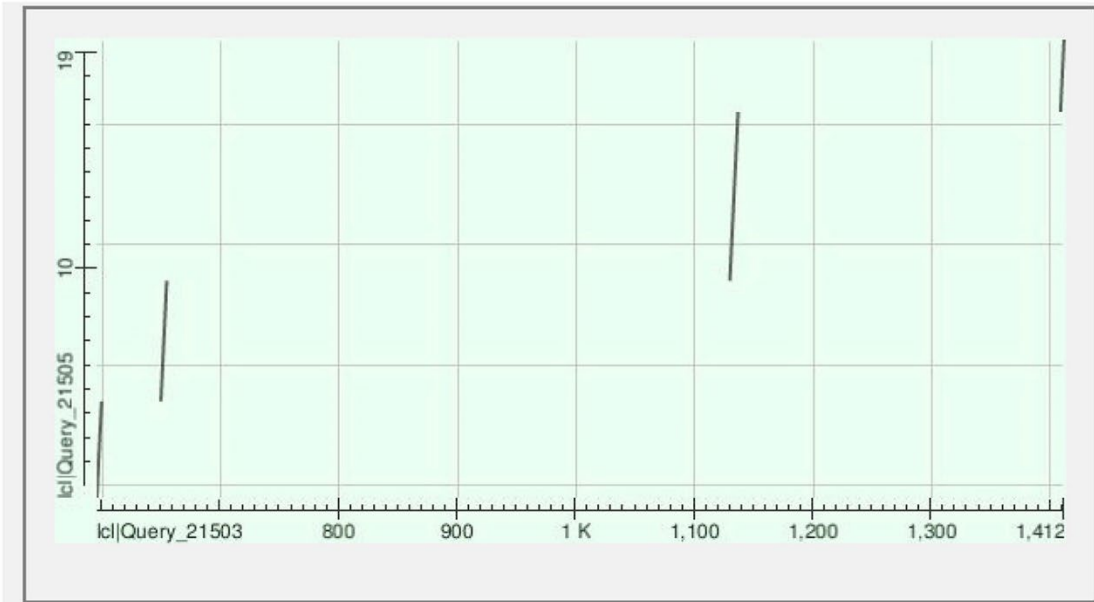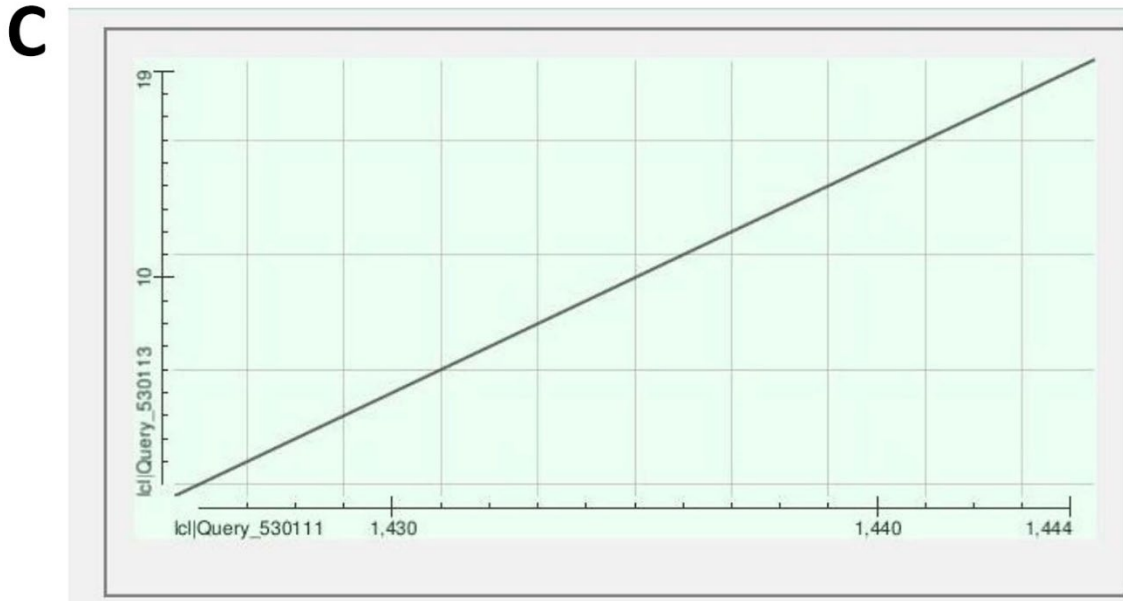
— Graphical view of primer pairs

— Detailed primer reports

Primer pair 1

	Sequence (5'->3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	AGCGTCGGATGCAAAGAAATC	Plus	21	1335	1355	59.60	47.62	5.00	2.00
Reverse primer	AAGCGCGTTCATTATCGTCC	Minus	20	1513	1494	59.07	50.00	4.00	2.00
Product length	179								

B

Appendix Figure 2. Summary of alignment plots of primers or probes to the vaccine (AHSV-1, AHSV-3 and AHSV-4) and outbreak (ThailandAHSV1) strains. These are made available from the Primer-BLAST and BLAST Global Alignment (dot plots) programs. A) Primer vs AHSV_1; B) VP5-DIVA-P1 vs AHSV_1 by BLAST Global Alignment by the Needleman-Wunsch algorithm; C) VP5-DIVA-P2 vs AHSV1 by BLAST Global Alignment by the Needleman-Wunsch algorithm.
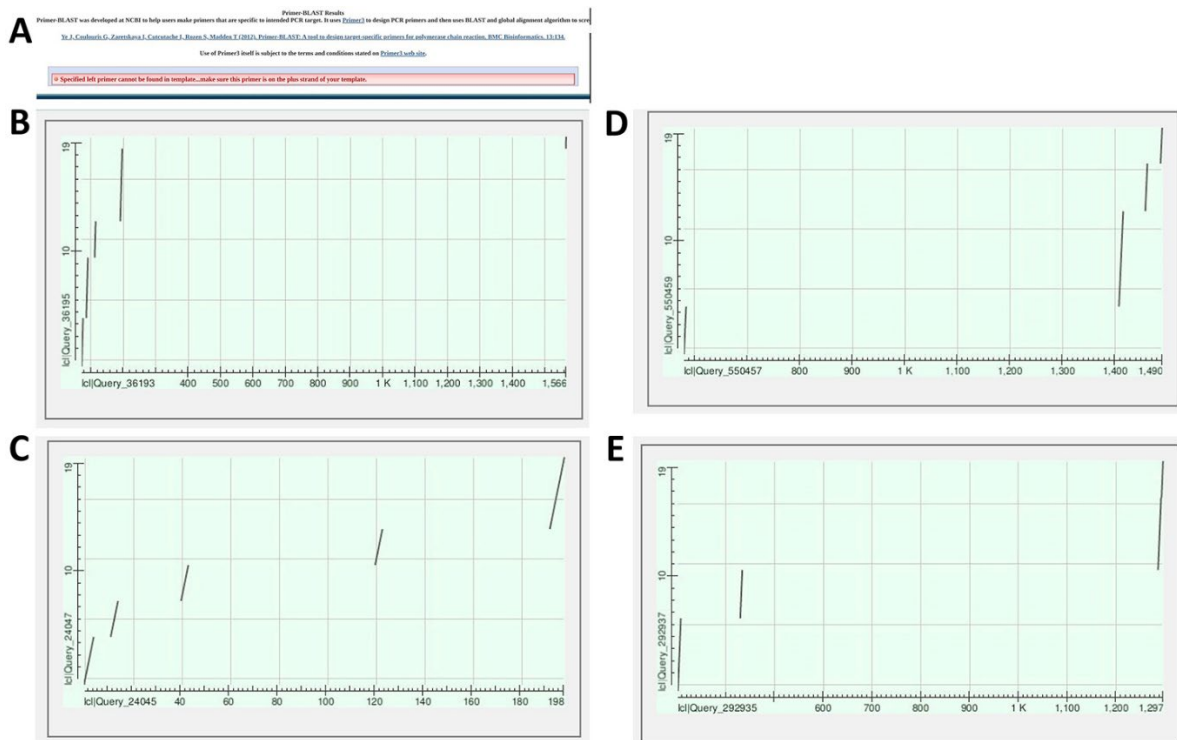
Appendix Figure 3. Summary of alignment plots of primers or probes to the vaccine (AHSV-1, AHSV-3 and AHSV-4) and outbreak (ThailandAHSV1) strains, by BLAST Global Alignment by the Needleman-Wunsch algorithm (dot plots). A) Primers vs AHSV_3 / AHSV_4; B) VP5-DIVA-1 vs AHSV_3; C) VP5-DIVA-2 vs AHSV_3; D) VP5-DIVA-1 vs AHSV_4; E) VP5-DIVA-2 vs AHSV_4.