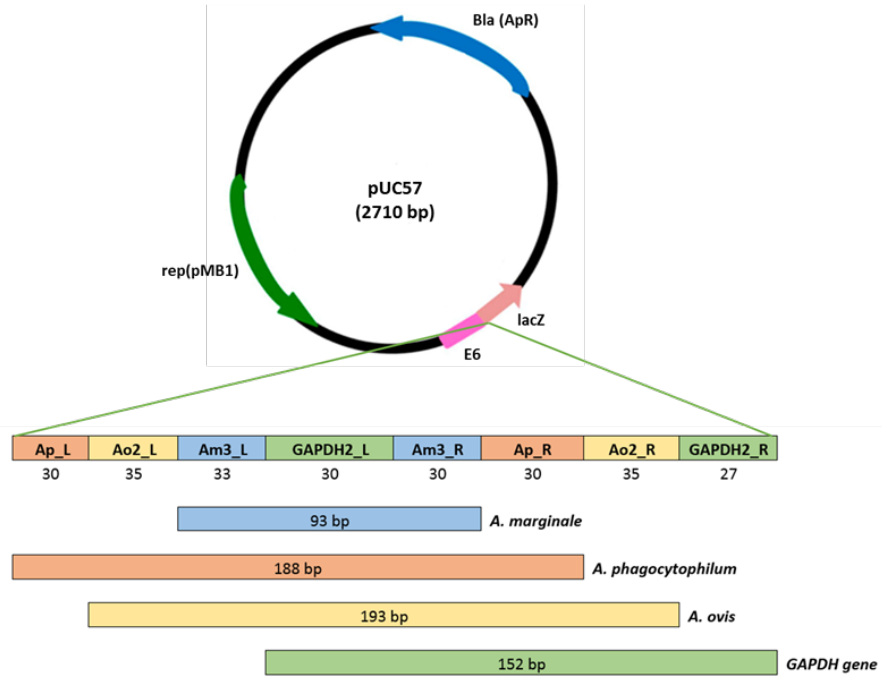
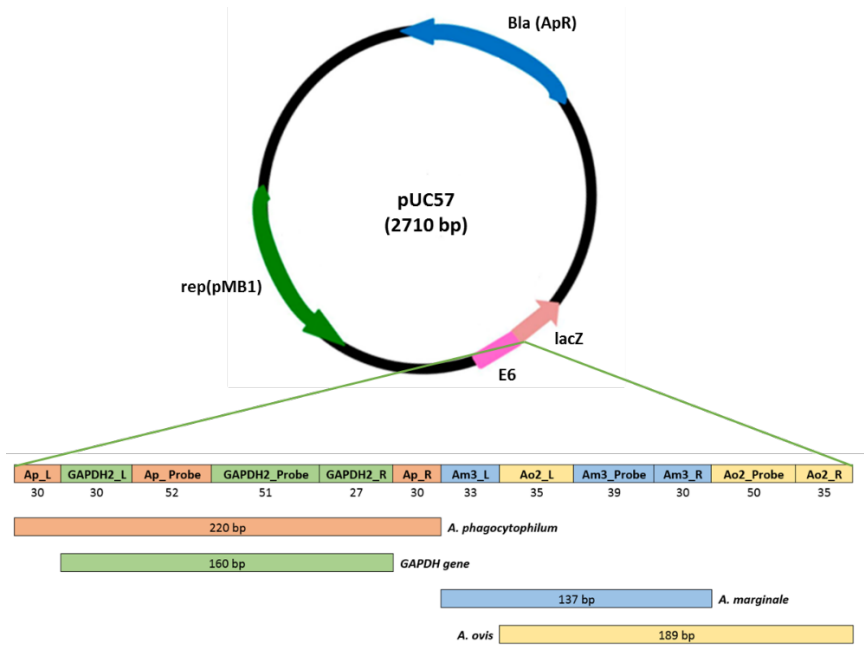


Supplemental Figure 1

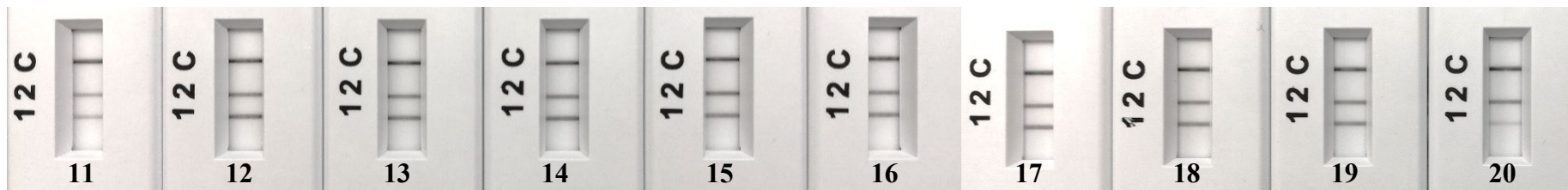
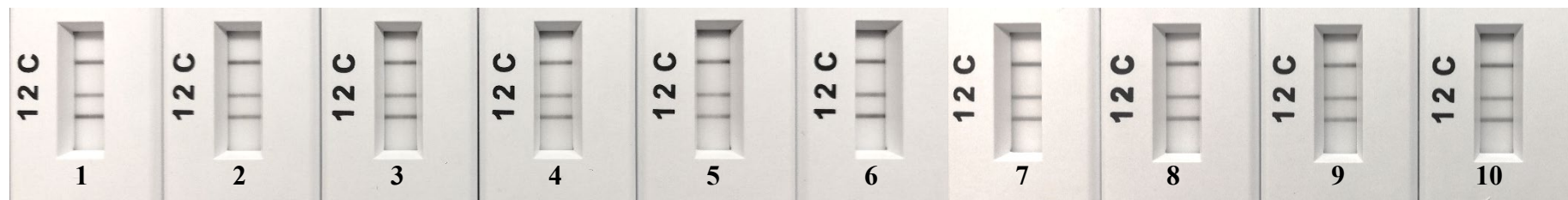
A



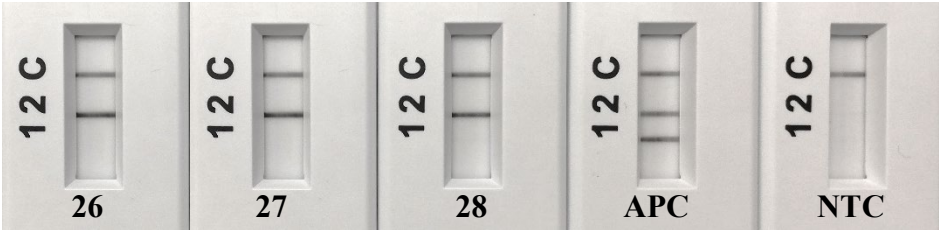
B



Supplemental Figure 2



Supplemental Figure 3



Supplemental Table 1. Endpoint PCR and multiplex lateral flow RPA detection of *A. marginale* from cELISA-positive serum samples provided by Oklahoma State University College of Veterinary Medicine, Stillwater.

Serum Samples	<i>A. marginale</i> PCR	Multiplex RPA- <i>nfo</i>	
		Internal control (Line 1)	<i>A. marginale</i> (Line 2)
1	-	+	-
2	-	+	-
3	-	+	-
4	-	+	+
5	-	+	-
6	-	+	+
7	-	+	+
8	-	+	+
9	-	+	+
10	-	+	+
11	-	+	+
12	-	+	+
13	-	+	+
14	-	+	+
15	-	+	+
16	+	+	+
17	-	+	+
18	-	+	+
19	-	+	+
20	-	+	+
21	-	+	+
22	-	+	+
23	-	+	+
24	-	+	+
APC	NT	+	+
Am sample	+	+	+
NTC	-	-	-

Supplemental Table 2. Results from Quantitative PCR using optimized RPA primers and multiplex RPA-*nfo* detection of varying prevalence rates of *A. marginale* strains in bovine blood samples and *A. phagocytophilum* from different cell culture samples provided by Oklahoma State University College of Veterinary Medicine, Stillwater.

N°	Cow # / cell line	Sample date / isolate	Blood prevalence	RPA Results		qPCR (RPA primers) (pg/ μ l)
				Line 1 (IC)	Line 2 (Anaplasma)	
<i>A. marginale</i>						
1	PA407	06/01	16	+	+	5.36
2		08/17	0.4	+	+	0.13
3		12/14	2	+	+	0.59
4		02/12	0	+	+	15.73
5	PA412	04/05	21	+	+	12.44
6		05/27	2	+	+	2.26
7	PA415	04/20	57	+	+	13.6
8	PA417	05/26	32	+	+	16.42
9		07/06	2	+	+	0.82
10		07/30	1	+	+	0.0863
11		09/27	0.5	+	+	0.0643
12		09/09	9	+	+	0.357
13	PA418	05/11	43	+	+	0.546
14		07/02	3	+	+	0.128
15		07/19	2	+	+	0.0837
<i>Other A. marginale strains</i>						
16	PA414	OK	44	+	+	5.533
17	PA349	Da*	50	+	+	4.43
18	PA413	OK	8	+	+	5.54
19	PA420	OK	12	+	+	9.47
20	PA428	OK	9	+	+	0.231
21	PA430	OK	7	+	-	0
22	PA443	OK	20	+	+	1.208
23	PA481	VA	35	+	+	13.97
24	PA482	OK	9	+	+	11.942
25	PA499	OK	8	+	+	3.748
<i>A. phagocytophilum</i>						
26	HL-60		cell culture	-	+	79.35
27	Ap74		cell culture	-	+	28.91
28	ISE6		cell culture	-	+	24.45

*Da = derived from *Dermacentor albipictus* ticks