

Table S1. Primers for the amplification of sequences of ticks and tick-borne pathogens

Organism	PCR method	Gene	Primer name	Sequences	References
ticks	nested PCR	<i>COI</i>	TCOIF1*	GGAGCYCCWGATATAGCTTTCCC	[55]
			TCOIR1*	CCTGGTAAAATTAAAATATAAACTTC	
			TCOIF2#	TTTTACCGCGATGAHTWTTYT	
			TCOIR2#	WGGRTGRCCAAARAATCAAAATA	
<i>Rickettsia</i>	qPCR	<i>rrs</i>	R-rrs -F	GGAGCATGCGGTTTAATTCTG	[56]
			R -rrs-R	GCCATGCAACACCTGTGTGT	
			R -rrs-Probe	VIC-CGGATCGCAGAGATG-MGB	
	semi-nested PCR	<i>rrs</i> fragment 1	R-rrs1-147F*#	GTACGGAATAACTTTTAGAAAT	[57]
			R-rrs1-1175R1*	CATGATGACTTGACRTCGT	
			R-rrs1-1034R2#	CATCTCACGACACGAGCTG	
		<i>rrs</i> fragment 2	R-rrs2-693F1*	GAAGGCGRTCATYTRGGCT	
			R-rrs2-699F2#	GRTCATYTRGGCTRCAACTG	
			R-rrs2-1427R*#	CTGCCTCTTGCGTTAGCT	
	semi-nested PCR	<i>gltA</i>	R-gltA-T151F1*	CCGGGYTTTATGTCTACTGC	[57]
			R-gltA-T156F2#	CTTTATGTCTACTGCKTCTTG	
			R-gltA-T1239R*#	AGCTGTCTWGGTCTGCTGATT	
	nested PCR	17kD	R-r17-F1*	TTTACAAAATTCTAAAAACCAT	[13]
			R-r17k-R1*	TCAATTCACAACCTTGCCATT	
			R-r17k-F2#	GCTCTTGCAACTTCTATGTT	
			R-r17k-R2#	TCAATTCACAACCTTGCCATT	
	Semi-nested PCR	<i>ompA</i>	R-r190k-F*#	TGGCGAATATTTCTCCAAAA	[58,59]
			R-r190k-R1*	TGCATTTGTATTACCTATTGT	
			R-r190k-R2#	AGTGCAGCATTCGCTCCCCCT	

Anaplasmataceae	qPCR	23S rRNA	Ana-F	TGA CAG CGT ACC TTT TGC AT	[60]
			Ana-R	GTA ACA GGT TCG GTC CTC CA	
			Ana-Probe	GGA TTA GAC CCG AAA CCA AG	
<i>Anaplasma</i> spp.	nested PCR	<i>rrs</i>	A&E-rrs-F1*	GAA CGA ACG CTG GCG GCA AGC	[61]
			A&E-rrs-R1*	AGT A(T/C)C G(A/G)A CCA GAT AGC CGC	
			A&E-rrs-F2#	TGC ATA GGA ATC TAC CTA GTA G	
	semi-nested PCR	<i>rrs</i> fragment 1	A&E-rrs-R2#	CTA GGA ATT CCG CTA TCC TCT	[62]
			ANAr1-F1*#	GGATAGCCACTRGAARTGGTG	
			ANAr1-R1*	CGTGCTGACTTGACATCAT	
	semi-nested PCR	<i>rrs</i> fragment 2	ANAr1-R2#	CATCTCACGACACGAGCTG	[62]
			ANAr2-F1*	CTGTCTGGTCCGGTACTGAC	
			ANAr2-F2#	TGGTCCGGTACTGACRCT	
	nested PCR	<i>gltA</i>	ANAr2-R1*#	TGCCTCCTTDCGGTTGGC	[62]
			ACS-F1*	GCGATTTTAGAGTGYGGAGATTG	
			ACS -R1*	TACAATACCGGAGTAAAAGTCAA	
<i>A. bovis</i>	Nested PCR	<i>groEL</i>	ACS-F2#	GGGTTCMTGTCYACTGCTGCGTG	[63]
			ACS -R2#	TTGGATCGTARTTCTTGTAGACC	
			HS1-F*	CGYCAGTGGGCTGGTAATGAA	
	semi-nested PCR	<i>groEL</i>	HS6-R*	CCWCCWGGTACWACACCTTC	[64]
			HS3-F#	ATAGTYATGAAGGAGAGTGAT	
			HSV-R#	TCAACAGCAGCTCTAGTWG	
	semi-nested PCR	<i>groEL</i>	Ab gro-ELF1*	GTTCGCAGTATTTTGCCAGT	[64]
			Ab gro-ELF2#	ATCTGGAAGRCCACTATTGAT	
			Ab gro-ELR*#	CTGCRTTCAGAGTCATAAATAC	
<i>A. capra</i>	nested PCR	<i>groEL</i>	Ac gro-ELF1*	GCGAGGCGTTAGACAAGTCCATT	[65]
			Ac gro-ELR3*	TCCAGAGATGCGAGCGTGATAG	

<i>A. phagocytophilum</i>	semi-nested PCR	<i>groEL</i>	Ac gro-ELF2#	TGCACTGCTGGTCCAAAGGGGCT	[65]
			Ac gro-ELR2#	CAACTTCGCTAGAGCCGCCAACC	
			Ap&p gro-ELF*#	ATGGTATGCAGTTTGATCGC	
			Ap&p gro-ELR1*	TCTACTCTGTCTTTGCGTTC	
			Ap gro-ELR2#	TTGAGTACAGCAACACCACCGGAA	
<i>Ehrlichia</i> spp.	semi-nested PCR	<i>rrs</i> fragment 1	EHRrrs1-F1*#	GAATAGCCATTAGAAATGATG	[62]
			EHRrrs1-R1*	GTCAGTATCGAACCAGATAG	
			EHRrrs1-R2#	GTATCGAACCAGATAGCCG	
		<i>rrs</i> fragment 2	EHRrrs2-F1*	CGGCTATCTGGTTCGATAC	
			EHRrrs2-F2#	CTATCTGGTTCGATACTGAC	
	nested PCR	<i>gltA</i>	EHRrrs2-R1*#	GCTTCCTTKCGGTTAGCAC	[66]
			ECS-F1*	TATGRTCRAAGAAGCAGTATT	
			ECS-R1*	GGAATATTAAC TTATGATCC	
			ECS-F2#	CTGACGTGGACGACATATCT	
			ECS-R2#	TGGGCTGGYAATGAAATTGA	
	nested PCR	<i>groEL</i>	HS1-F*	CGYCAGTGGGCTGGTAATGAA	[67]
			HS6-R*	CCWCCWGGTACWACACCTTC	
			GROEL-F#	TGGCAAATGTAGTTGTAACAGG	
	semi-nested PCR	<i>ftsZ</i>	GROEL-R#	GCCGACTTTTAGTACAGCAA	[68]
			Eh_ftsZ_703_R1*	CWGCTTCTCCTGTRCCCATCAT	
			Eh_ftsZ_313_F2#	ACTGCYGGAATGGGTGGWGGA	
	nested PCR	conP28	Eh_ftsZ_679_R2*#	TTTRCCCATYTCRCTCATTATTGC	[68]
			conP28-F1	AT(C/T)AGT(G/C)AAA(A/G)TA(T/C)(A/G)T(G/A)CCAA	
			conP28-R1	TTA(G/A)AA(A/G)G(C/T)AAA(C/T)CT(T/G)CCTCC	
			conP28-F2	CAATGG(A/G)(T/A)GG(T/C)CC(A/C)AGA(AG)TAG	
			conP28-R2	TTCC(T/C)TG(A/G)TA(A/G)G(A/C)AA(T/G)TTTAGG	

<i>Borrelia spp.</i>	PCR	<i>dsb</i>	Eh-dsb-330 F	GATGATGTCTGAAGATATGAAACAAAT	[69]
			Eh-dsb-728 R	CTGCTCGTCTATTTTACTTCTTAAAGT	
	qPCR	23S rRNA	Bo23S-F	GAGTCTTAAAAGGGCGATTAGT	[70]
			Bo23S-R	CTTCAGCCTGGCCATAAATAG	
			Bo23S-Probe	AGATGTGGTAGACCCGAAGCCGAGT	[53]
	nested PCR	<i>ospA</i>	Bor-ospA-F1*	GGGAATAGGTCTAATATTAGCC	
			Bor-ospA-R1*	CACTAATTGTTAAAGTGGAAGT	
			Bor-ospA-F2#	GCAAAATGTTAGCAGCCTTGAT	
<i>Francisella tularensis</i>			Bor-ospA-R2#	CTGTGTATTCAAGTCTGGC	[70]
	qPCR	<i>fopA</i>	Fr-fopA-F	GGCAAATCTAGCAGGTCAAGC	
			Fr-fopA-R	CAACACTTGCTTGAACATTCTAG	
			Fr-fopA-Probe	AACAGGTGCTTGGGATGTGGGTGGTG	
<i>Coxiella burnetii</i>	qPCR	<i>IS1111</i>	Co-IS111-F	TGGAGGAGCGAACCATTGGT	[70]
			Co-IS111-R	CATACGGTTTGACGTGCTGC	
			Co-IS111-Probe	ATCGGACGTTTATGGGGATGGGTATCC	
<i>Bartonella</i>	qPCR	<i>ssrA</i>	Bar-ssrA-F	GCTATGGTAATAAATGGACAATGAAATAA	[71]
			Bar-ssrA-R	GCTTCTGTTGCCAGGTG	
			Bar-ssrA-Probe	ACCCCGCTTAAACCTGCGACG	
<i>Babesia–Theileria– Hepatozoon</i>	nested PCR	18S rRNA	BTH18S-F1*	GTGAAACTGCGAATGGCTCATTAC	[33]
			BTH18S-R1*	AAGTGATAAGGTTACAAAACTTCCC	
			BTH18S- F2#	GGCTCATTACAACAGTTATAGTTTATTG	
			BTH18S- R2#	CGGTCCGAATAATTCACCGGAT	

*Primers using in first round of nested PCR or semi-nested PCR

Primers using in second round of nested PCR or semi-nested PCR