

Supplementary Data

TABLE S1. PRIMERS USED FOR DETECTION AND/OR CHARACTERIZATION OF *ANAPLASMA PHAGOCYTOPHILUM* AND/OR RELATED SPECIES AND *A. OVIS* IN SHEEP AND GOATS IN THE PRESENT STUDY

Assay	Primer	Sequence 5' to 3'	Target gene	Amplicon size (bp)	Reference
First PCR <i>Anaplasma</i> sp. ^a	EE-1	TCCTGGCTCAGAACGAACGCTGGCGGC	<i>16S rRNA</i>	1433	Barlough et al. (1996)
	EE-2	AGTCACTGACCCAACCTTAAATGGCTG			
Second PCR <i>A. phagocytophilum</i> ^b	SSAP2f ^c	GCTGAATGTGGGGATAATTTAT	<i>16S rRNA</i>	641	Kawahara et al. (2006)
	SSAP2r ^c	ATGGCTGCTTCCTTTCGGTTA			
Nested PCR <i>A. phagocytophilum</i> ^d	EphplgroEL-F	ATGGTATGCAGTTTGATCGC	<i>groEL</i>	624	Alberti et al. (2005)
	EphplgroEL-R	TCTACTCTGTCTTTGCGTTC		573	
	EphplgroEL-F EphgroEL-R	ATGGTATGCAGTTTGATCGC TTGAGTACAGCAACACCACCGGAA			
Single PCR <i>A. ovis</i>	AovisMSP4Fw	TGAAGGGAGCGGGGTCATGGG	<i>msp4</i>	344	Torina et al. (2012)
	AovisMSP4Rev	GAGTAATTGCAGCCAGGGACTCT			
LAMP <i>A. ovis</i>	MSP4F3	GGGAGCTCCTATGAATTACAGAGAA TTGTTTAC	<i>msp4</i>	—	Ma et al. (2012)
	MSP4B3	CCGGATCCTTAGCTGAACAGGA ATCTTGC			
	MSP4FIP MSP4BIP MSP4LF	GTGTTGCACACAGATTTGCC AGGCTTTTGCTTCTCCGG GCCCTGTAGGCTAGCTTTGTG-CCCA TATGTGTGTGCCGG			
	MSP4LB	TGGTGGTAGGTGGGTTCTACCA-ATGT GCGGGTATGTCCTTG			
	MSP4F3 MSP4B3	TGTCGACAAAGCTAGCACC CGGACTCTTGACGAGTCTT			
Single PCR <i>A. ovis/A. marginale</i>	MSP45 ^e	GGGAGCTCCTATGAATTACAGAG AATTGTTTAC	<i>msp4</i>	852	
	MSP43 ^e	CCGGATCCTTAGCTGAACAGGA ATCTTGC			

^aFirst *Anaplasma* catch-all PCR.

^bFor *16S rRNA*, this PCR is a second PCR, performed after the first PCR, allowing the detection of *A. phagocytophilum* and related species according to Ybañez et al. (2012a).

^cPrimers used in PCR and sequencing reactions for detection and characterization of *A. phagocytophilum* and related species.

^dNested PCR performed for the specific detection of *A. phagocytophilum*.

^ePrimers used in PCR and sequencing reactions for detection and/or characterization of *A. ovis*.