Supplementary Table S2.*Oligonucleotides and hydrolysis probes sequences, target genes and cycling conditions used in qPCR assays that were performed in biological samples from wild mammals, domestic dogs and their respective ectoparasites, sampled in Pantanal wetland, Brazil.*

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| --- | --- | --- | --- |
| Primers and probes sequences (5’-3’) | Gene | Thermal conditions | References |
| EHRF (GCGAGCATAATTACTCAGAG) | *groEL*/ *Ehrlichia* spp. and *Anaplasma* spp. | 95°C for 3 minutes followed by 50 cycles at 95°C for 10 seconds and 52.7°C for 30 seconds | [10] |
| EHRR (CAGTATGGAGCATGTAGTAG) |
| EHR [TET]CATTGGCTCTTGCTATTGCTAAT [BHQ2a-Q]3’ |
| ANAF (TTATCGTTACATTGAGAAGC) |
| ANAR (GATATAAAGTTATTAAAAGTATAAAGC) |
| ANA [Cy-5] CCACCTTATCATTACACTGAGACG [BHQ2a-Q]3’ |
| 903f (AGTTTGACTGGAACACACCTGATC) | *msp-2/ Anaplasma phagocitophilum* | 50°C for 2 min, 95°C for 3 minutes followed by 40 cycles at 95°C for 15 seconds and 60°C for 1min. | [26] |
| 1024r (CTCGTAACCAATCTCAAGCTCAAC) |
| [FAM]-TTAAGGACAACATGCTTGTAGCTATGGAAGGCA [TAMRA] 3' |
| F (CTAATTCTGATTTACACGAGTCTTC) | *vlpt/ Ehrlichia chaffeensis* | 95°C for 3 minutes followed by 40 cycles at 95°C for 10 seconds and 55°C for 30 seconds | [28] |
| R (GCATCATCTTCGAATTGAACTTC) |
| 5’[TAMRA] TTGAGTGTCC[BHQ2a-Q]3’ |
| dsb-330 (GATGATGTCTGAAGATATGAAACAAAT) | *dsb/ Ehrlichia canis* | 95°C for 5 minutes followed by 40 cycles at 95°C for 15 seconds and 60°C for 1min. | [27] |
| dsb-728 (CTGCTCGTCTATTTTACTTCTTAAAGT) |
| 5’[FAM] AGCTAGTGCTGCTTGGGCAACTTTGAGTGAA-3 [BHQ-1]3’ |