Molecular Detection of *Rickettsia* Spp. and *Coxiella Burnetii* in Cattle, Water Buffalo, and *Rhipicephalus (Boophilus) Microplus* Ticks in Luzon Island of the Philippines

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**Table S1.** Primers used for the amplification of control genes *actin* and *mt-rrs* in blood and tick samples, respectively, and detection of *Rickettsia* and *Coxiella burnetii.*

| Organism | Target gene | Primer Name | Sequence (5’ → 3’) | Expected size (bp) | References |
|----------|-------------|-------------|---------------------|-------------------|------------|
| Ruminant (Blood) | *actin* | forward | CGCACCACCGGCATCG TGAT | 227 | [35] |
| | | reverse | TCCAGGGCCACGTAGC AGAG | | |
| Ticks | *mt-rrs* | forward | CTGCTCAATGATTTTTT AATTGCTGTGG | 560 | [36] |
| | | forward | CCGGTCTGAACCTCAGA TCAAGTA | | |
| Rickettsia | *gltA* | CS2d | ATGACCAATGAAAATA ATAAT | 1,250 | [37] |
| | | CSEndr | CTTATACTCTCTATGTA CA | | |
| | | RpCs877p | GGGGGCCTGCTACGG CGG | 341 | |
| Gene   | Sequence                        | Start |
|--------|---------------------------------|-------|
| RpCs1258n | ATTGCAAAAAAGTACAG TGAAC           |       |
| OMP1   | AGTGAAGCAGATCCCCA GCATTG       | 501   |
| OMP2   | TGCCCTGCTAGCTGAA CGATTG        |       |
| OMP3   | GAAGCGCAAAGAA GAACAC           | 438   |
| OMP4   | TTGGAAGTTATCACGC AGTTG         |       |

Coxiella burnetti con1

[38]
Table S2. PCR conditions for the amplification of target fragments of control genes *actin* and *mt-rrs* in blood and tick samples, respectively, and the *gltA* gene of *Rickettsia* and *com1* gene of *C. burnetti*.

| Target Gene | PCR Condition |
|-------------|---------------|
| *actin*     | 94°C → [94°C → 65°C → 72°C → 5 min → 72°C → 10°C] |
| *mt-rrs*    | 95°C → [94°C → 56°C → 72°C → 5 min → 10°C] |
| *gltA*      | 1st round: 95°C → [94°C → 52°C → 72°C → 1.5 min → 5 min → 10°C] |
|             | 2nd round: 94°C → [94°C → 52°C → 72°C → 30 s → 5 min → 10°C] |
| *com1*      | 1st round: 94°C → [94°C → 54°C → 72°C → 1 min → 5 min → 10°C] |
|             | 2nd round: 94°C → [94°C → 54°C → 72°C → 30 s → 5 min → 10°C] |