

**Table S1.** e-Reader<sup>®</sup> values obtained with Explorer<sup>®</sup>-Blood for the different combinations of antimicrobials and concentrations tested (spiked samples). Each column (R1-R10) presents the result of each of the replicates analyzed, as well as de medium value, standard deviation (SD) and qualitative result (+/-). For comparison purposes and as a reference, the last column includes the EU-MRLs for muscle (Commission Regulation (EU) No 37/2010). Concentration is presented as  $\mu\text{g Kg}^{-1}$ . Concentrations in bold correspond to the LoDs of the method.

| Molecule        | Concentration | n  | R1  | R2  | R3  | R4  | R5  | R6  | R7  | R8  | R9  | R10 | e-Reader <sup>®</sup> Value | SD | Result | EU-MRL (Muscle) |
|-----------------|---------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------------|----|--------|-----------------|
| Amoxicillin     | 10            | 3  | 76  | 82  | 80  |     |     |     |     |     |     |     | 79                          | 3  | +      |                 |
|                 | <b>15</b>     | 8  | 117 | 117 | 117 | 109 | 125 | 127 | 129 | 129 |     |     | 121                         | 7  | +      | <b>50</b>       |
|                 | 20            | 3  | 127 | 123 | 124 |     |     |     |     |     |     |     | 125                         | 2  | +      |                 |
| Cefalexin       | 100           | 5  | 34  | 39  | 38  | 38  | 35  |     |     |     |     |     | 37                          | 2  | -      |                 |
|                 | 200           | 10 | 73  | 74  | 71  | 50  | 43  | 49  | 66  | 64  | 107 | 105 | 70                          | 22 | +/-    |                 |
|                 | <b>250</b>    | 8  | 67  | 73  | 76  | 65  | 65  | 65  | 60  | 65  |     |     | 67                          | 5  | +      | <b>200</b>      |
|                 | 300           | 5  | 75  | 76  | 73  | 116 | 112 |     |     |     |     |     | 90                          | 22 | +      |                 |
| Ceftiofur       | 100           | 3  | 31  | 32  | 32  |     |     |     |     |     |     |     | 32                          | 1  | -      |                 |
|                 | 200           | 4  | 33  | 33  | 35  | 62  |     |     |     |     |     |     | 41                          | 14 | -      |                 |
|                 | <b>300</b>    | 8  | 107 | 118 | 102 | 110 | 104 | 99  | 92  | 90  |     |     | 103                         | 9  | +      | <b>1000</b>     |
|                 | 400           | 3  | 121 | 117 | 120 |     |     |     |     |     |     |     | 119                         | 2  | +      |                 |
| Sulfamethazine  | <b>100</b>    | 8  | 65  | 65  | 79  | 81  | 81  | 83  | 75  | 76  |     |     | 76                          | 7  | +      | <b>100</b>      |
|                 | 150           | 7  | 82  | 80  | 91  | 92  | 80  | 79  | 94  |     |     |     | 85                          | 7  | +      |                 |
|                 | 200           | 8  | 83  | 78  | 90  | 90  | 87  | 88  | 86  | 93  |     |     | 87                          | 5  | +      |                 |
| Sulfadiazine    | 50            | 3  | 55  | 50  | 54  |     |     |     |     |     |     |     | 53                          | 3  | -      |                 |
|                 | <b>100</b>    | 8  | 94  | 89  | 89  | 88  | 87  | 82  | 90  | 94  |     |     | 89                          | 4  | +      | <b>100</b>      |
|                 | 150           | 3  | 95  | 99  | 97  |     |     |     |     |     |     |     | 97                          | 2  | +      |                 |
| Oxytetracycline | 100           | 8  | 60  | 57  | 51  | 54  | 57  | 56  | 52  | 51  |     |     | 55                          | 3  | +/-    |                 |
|                 | <b>200</b>    | 8  | 84  | 77  | 82  | 80  | 91  | 74  | 78  | 74  |     |     | 80                          | 6  | +      | <b>100</b>      |
|                 | 300           | 3  | 98  | 96  | 98  |     |     |     |     |     |     |     | 97                          | 1  | +      |                 |
|                 | <b>100</b>    | 8  | 77  | 78  | 70  | 77  | 84  | 78  | 87  | 91  |     |     | 80                          | 7  | +      | <b>100</b>      |
|                 | 200           | 8  | 60  | 65  | 102 | 95  | 98  | 102 | 102 | 96  |     |     | 90                          | 17 | +      |                 |

|             |      |    |     |     |     |     |     |     |     |     |    |    |     |   |   |      |
|-------------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|---|---|------|
| Doxycycline | 300  | 8  | 91  | 97  | 114 | 111 | 113 | 111 | 114 | 114 |    |    | 108 | 9 | + |      |
|             | 400  | 3  | 112 | 108 | 110 |     |     |     |     |     |    |    | 110 | 2 | + |      |
| Neomycin    | 15   | 3  | 70  | 79  | 76  |     |     |     |     |     |    |    | 75  | 5 | + |      |
|             | 25   | 10 | 103 | 106 | 97  | 87  | 101 | 99  | 96  | 105 | 95 | 96 | 99  | 6 | + | 500  |
|             | 50   | 3  | 110 | 115 | 114 |     |     |     |     |     |    |    | 113 | 3 | + |      |
| Apramycin   | 500  | 8  | 122 | 120 | 117 | 127 | 127 | 122 | 125 | 122 |    |    | 123 | 3 | + | 1000 |
|             | 1000 | 3  | 126 | 130 | 129 |     |     |     |     |     |    |    | 128 | 2 | + |      |
|             | 1500 | 3  | 128 | 125 | 128 |     |     |     |     |     |    |    | 127 | 2 | + |      |
| Tylosin     | 25   | 3  | 59  | 58  | 60  |     |     |     |     |     |    |    | 59  | 1 | + |      |
|             | 50   | 8  | 94  | 92  | 95  | 91  | 95  | 93  | 91  | 87  |    |    | 92  | 3 | + | 100  |
|             | 75   | 3  | 110 | 97  | 104 |     |     |     |     |     |    |    | 104 | 7 | + |      |
| Lincomycin  | 200  | 8  | 65  | 66  | 67  | 62  | 66  | 69  | 58  | 65  |    |    | 65  | 3 | + | 100  |
|             | 300  | 8  | 78  | 77  | 71  | 66  | 82  | 71  | 72  | 70  |    |    | 73  | 5 | + |      |
|             | 400  | 3  | 78  | 79  | 78  |     |     |     |     |     |    |    | 78  | 1 | + |      |