JVDI: Supplemental material

Kapalamula TF, et al. Direct detection of *Mycobacterium bovis* by a dry loop-mediated isothermal amplification assay in cattle samples collected during routine abattoir examination in Malawi

**Supplemental Table 1.** Description and analysis of bovine tuberculosis–suspected samples in Malawi.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID | Abattoir region | Tissue type | MGIT | mPCR | *M. bovis* dry LAMP | Crude DNA\* |
| 1 | Southern | Lung tissue | + | – | – |  |
| 2 | Southern | Bronchial LN | + | – | – |  |
| 3 | Southern | Bronchial LN | + | – | – |  |
| 4 | Southern | Liver tissue | + | Bovis | + |  |
| 5 | Southern | Lung tissue | NA | NA | NA |  |
| 6 | Southern | Retropharyngeal | – | – | + |  |
| 7 | Southern | Lung tissue | – | – | – |  |
| 8 | Southern | Lung tissue | + | Bovis | + |  |
| 9 | Southern | Mesenteric LN | – | – | – |  |
| 10 | Southern | Bronchial LN | – | – | – |  |
| 11 | Southern | Bronchial LN | + | Bovis | + |  |
| 12 | Southern | Retropharyngeal | + | – | – |  |
| 13 | Southern | Mediastinal LN | + | Bovis | + |  |
| 14 | Southern | Mediastinal LN | – | – | – |  |
| 15 | Southern | Mediastinal LN | – | – | – |  |
| 16 | Southern | Prescapular LN | – | – | + |  |
| 17 | Southern | Prescapular LN | – | – | – |  |
| 18 | Southern | Lung tissue | – | – | – |  |
| 19 | Southern | Lung tissue | + | Bovis | + |  |
| 20 | Southern | Lung tissue | – | – | – |  |
| 21 | Southern | Lung tissue | – | – | – |  |
| 22 | Southern | Lung tissue | – | – | + |  |
| 23 | Southern | Lung tissue | NA | NA | NA |  |
| 24 | Southern | Liver tissue | + | Bovis | + |  |
| 25 | Southern | Mesenteric LN | + | Bovis | + |  |
| 26 | Southern | Bronchial LN | + | Bovis | + |  |
| 27 | Southern | Mediastinal LN | + | Bovis | + |  |
| 28 | Southern | Prescapular LN | + | Bovis | + |  |
| 29 | Southern | Lung tissue | + | Bovis | + |  |
| 30 | Southern | Lung tissue | + | Bovis | + |  |
| 31 | Southern | Lung tissue | + | Bovis | + |  |
| 32 | Southern | Lung tissue | + | Bovis | + |  |
| 33 | Central | Mediastinal LN | + | – | – |  |
| 34 | Central | Lung tissue | – | – | – | \* |
| 35 | Central | Retropharyngeal | + | Bovis | + | \* |
| 36 | Central | Bronchial LN | – | – | – |  |
| 37 | Central | Lung tissue | + | Bovis | + |  |
| 38 | Central | Bronchial LN | + | Bovis | + |  |
| 39 | Central | Bronchial LN | + | Bovis | + |  |
| 40 | Central | Retropharyngeal | – | – | – |  |
| 41 | Central | Bronchial LN | + | Bovis | + | \* |
| 42 | Central | Mediastinal LN | + | – | + |  |
| 43 | Central | Liver tissue | – | – | – |  |
| 44 | Central | Liver tissue | + | Bovis | + | \* |
| 45 | Central | Mesenteric LN | + | Bovis | + |  |
| 46 | Central | Bronchial LN | + | Bovis | + |  |
| 47 | Central | Retropharyngeal | + | Bovis | + |  |
| 48 | Central | Bronchial LN | + | – | – |  |
| 49 | Central | Mesenteric LN | + | Bovis | + | \* |
| 50 | Central | Bronchial LN | + | – | – |  |
| 51 | Central | Mesenteric LN | – | – | – | \* |
| 52 | Central | Lung tissue | + | Bovis | + | \* |
| 53 | Central | Mediastinal LN | + | Bovis | + | \* |
| 54 | Central | Mesenteric LN | – | – | – | \* |
| 55 | Central | Mediastinal LN | + | Bovis | + | \* |
| 56 | Central | Mesenteric LN | + | Bovis | + |  |
| 57 | Central | Bronchial LN | – | – | – |  |
| 58 | Central | Mediastinal LN | + | – | + |  |
| 59 | Central | Bronchial LN | + | – | + | \* |
| 60 | Central | Bronchial LN | + | – | – | \* |
| 61 | Central | Mesenteric LN | + | Bovis | + |  |
| 62 | Central | Mesenteric LN | + | Bovis | + |  |
| 63 | Central | Retropharyngeal | + | – | – | \* |
| 64 | Central | Lung tissue | + | Bovis | + |  |
| 65 | Central | Mesenteric LN | + | Bovis | + |  |
| 66 | Central | Mediastinal LN | – | – | – | \* |
| 67 | Central | Prescapular LN | + | Bovis | + |  |
| 68 | Central | Mediastinal LN | + | – | – |  |
| 69 | Central | Mesenteric LN | – | – | – | \* |
| 70 | Central | Mediastinal LN | – | – | – | \* |
| 71 | Central | Prescapular LN | + | Bovis | + |  |
| 72 | Central | Lung tissue | + | Bovis | + | \* |
| 73 | Central | Mediastinal LN | – | – | + | \* |
| 74 | Central | Lung tissue | + | Bovis | + | \* |
| 75 | Central | Lung tissue | + | Bovis | + |  |
| 76 | Central | Lung tissue | + | Bovis | + |  |
| 77 | Central | Bronchial LN | + | Bovis | + |  |
| 78 | Central | Retropharyngeal | + | Bovis | + |  |
| 79 | Central | Mediastinal LN | + | – | – | \* |
| 80 | Central | Mediastinal LN | + | Bovis | + |  |
| 81 | Central | Retropharyngeal | – | – | – | \* |
| 82 | Central | Mesenteric LN | – | – | – |  |
| 83 | Central | Bronchial LN | – | – | – |  |
| 84 | Central | Mediastinal LN | + | Bovis | + | \* |
| 85 | Central | Bronchial LN | + | Bovis | + |  |
| 86 | Central | Mediastinal LN | + | Bovis | + |  |
| 87 | Central | Mediastinal LN | + | – | – | \* |
| 88 | Central | Mediastinal LN | + | Bovis | + |  |
| 89 | Central | Retropharyngeal | + | Bovis | + |  |
| 90 | Central | Mediastinal LN | + | Bovis | + | \* |
| 91 | Central | Mesenteric LN | – | – | – | \* |
| 92 | Central | Lung tissue | + | – | – |  |
| 93 | Central | Bronchial LN | + | Bovis | + | \* |
| 94 | Central | Retropharyngeal | + | Bovis | + | \* |
| 95 | Central | Lung tissue | + | – | – |  |
| 96 | Central | Lung tissue | – | – | – |  |
| 97 | Central | Lung tissue | + | – | – |  |
| 98 | Central | Lung tissue | + | Bovis | + | \* |
| 99 | Central | Lung tissue | + | – | – |  |
| 100 | Central | Lung tissue | – | – | – |  |
| 101 | Central | Lung tissue | + | Bovis | + | \* |
| 102 | Central | Retropharyngeal | + | Bovis | + | \* |
| 103 | Central | Lung tissue | – | – | – | \* |
| 104 | Central | Liver tissue | + | Bovis | + | \* |
| 105 | Central | Lung tissue | – | – | – |  |
| 106 | Central | Lung tissue | + | Bovis | + |  |
| 107 | Central | Lung tissue | + | – | – | \* |
| 108 | Central | Lung tissue | + | Bovis | + | \* |
| 109 | Central | Lung tissue | + | Bovis | + | \* |
| 110 | Central | Lung tissue | – | – | – | \* |
| 111 | Central | Lung tissue | + | Bovis | + | \* |
| 112 | Central | Lung tissue | + | Bovis | + | \* |
| 113 | Central | Liver tissue | + | Bovis | + | \* |
| 114 | Central | Lung tissue | – | – | – |  |
| 115 | Central | Lung tissue | + | Bovis | + | \* |
| 116 | Central | Lung tissue | + | Bovis | + |  |
| 117 | Central | Lung tissue | + | Bovis | + |  |
| 118 | Central | Lung tissue | + | Bovis | + |  |
| 119 | Central | Lung tissue | + | Bovis | + |  |
| 120 | Central | Lung tissue | – | – | – | \* |
| 121 | Central | Lung tissue | + | Bovis | + |  |
| 122 | Central | Lung tissue | + | Bovis | + |  |
| 123 | Central | Lung tissue | + | Bovis | – |  |
| 124 | Central | Lung tissue | + | Bovis | + |  |
| 125 | Central | Lung tissue | + | Bovis | + |  |
| 126 | Central | Lung tissue | + | Bovis | + |  |
| 127 | Central | Lung tissue | + | – | – |  |
| 128 | Central | Lung tissue | + | Bovis | + |  |
| 129 | Central | Lung tissue | + | Bovis | + |  |
| 130 | Central | Lung tissue | + | Bovis | + |  |
| 131 | Central | Lung tissue | + | Bovis | + |  |
| 132 | Central | Lung tissue | + | Bovis | + |  |
| 133 | Central | Mesenteric LN | + | Bovis | + |  |
| 134 | Central | Mediastinal LN | + | Bovis | + | \* |
| 135 | Central | Mesenteric LN | – | – | – | \* |
| 136 | Central | Bronchial LN | + | – | – |  |
| 137 | Northern | Mesenteric LN | + | Bovis | + |  |
| 138 | Northern | Bronchial LN | + | – | + |  |
| 139 | Northern | Bronchial LN | + | – | – |  |
| 140 | Northern | Lung tissue | – | – | – |  |
| 141 | Northern | Lung tissue | – | – | – |  |
| 142 | Northern | Lung tissue | – | – | – |  |
| 143 | Northern | Lung tissue | – | – | – |  |
| 144 | Northern | Liver tissue | + | Bovis | – |  |
| 145 | Northern | Liver tissue | + | Bovis | + |  |
| 146 | Northern | Lung tissue | + | Bovis | + |  |
| 147 | Northern | Bronchial LN | – | – | – |  |
| 148 | Northern | Bronchial LN | + | Bovis | + |  |
| 149 | Northern | Bronchial LN | + | Bovis | + |  |
| 150 | Northern | Lung tissue | + | Bovis | + |  |
| 151 | Northern | Mediastinal LN | + | Bovis | + |  |
| 152 | Northern | Mediastinal LN | + | – | – |  |
| 153 | Northern | Bronchial LN | + | Bovis | + |  |
| 154 | Northern | Lung tissue | + | Bovis | + |  |

Two samples were not cultured (NA) because of logistical constraints, hence 152 samples are included in all analyses.

Bovis = *Mycobacterium bovis*; LN = lymph node; MGIT = mycobacterial growth indicator tube; mPCR = multiplex PCR for differentiating *M. bovis* and *M. tuberculosis*2,7; – = negative; + = positive.

\* Randomly sampled for crude DNA extraction.