**Supplementary Table 1. *Legionella* species and serogroups used in the current study**

|  |  |
| --- | --- |
| *L. pneumophila* sg1 | *L. quateirensis*  |
| *L. pneumophila* sg2 | *L. geestiana* |
| *L. pneumophila* sg3 | *L. nautarum*  |
| *L. pneumophila* sg4 | *L. quinlavanii* sg1 |
| *L. pneumophila* sg5 | *L. quinlivanii* sg 2 |
| *L. pneumophila* sg6 | *L. israelensis*  |
| *L. dumoffii* | *L. londiniensis*  |
| *L. longbeachae* sg1 | *L. adelaidensis*  |
| *L. longbeachae* sg2 | *L. brunensis*  |
| *L. bozemanii* sg1 | *L. cincinnatiensis*  |
| *L. bozemanii* sg2 | *L. worsleiensis*  |
| *L. gormanii* | *L. jordanis* |
| *L. micdadei* | *L. lansingensis* |
| *L. wadsworthii* | *L. shakespearei* |
| *L. parisensis* | *L. tucsonensis* sg1 |
| *L. feeleii* sg1 | *L. tucsonensis* sg2 |
| *L. feeleii* sg2 | *L. taurinensis* |
| *L. sainthelensis* sg1 | *L. birminghamensis* sg1 |
| *L. sainthelensis* sg2 | *L. birminghamensis* sg2 |
| *L. anisa* | *L. oakridgensis* sg1 |
| *L spiritensis* sg1 | *L. oakridgensis sg2* |
| *L. spiritensis* sg 2 | *L. genomo species* |
| *L. maceachernii* | *L. gresilensis*  |
| *L. santicrucis* | *L. beliardensis*  |
| *L. cherrii* | *L. gratiana* |
| *L. steigerwaltii* | *L. waltersii* |
| *L. rubriluscens* | *L. drozanskii* |
| *L. erythra* | *L. rowbothamii* |
| *L. hackeliae* sg1 | *L. fallonii* |
| *L. hackeliae* sg2 | *L. impletisoli* |
| *L. fairfieldensis*  | *L. yabuuchiae* |
| *L. moravica* | *Legionella*-like organism |

**Supplementary Table 2: Detection of targeted non-*pneumophila* *Legionella* spp. in mock sputum samples**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Legionella* species** | **60 CFU (avg. Ct ± SD)** | **40 CFU (avg. Ct ± SD)** | **20 CFU (avg. Ct ± SD)** | **10 CFU (avg. Ct ± SD)** | **1 CFU (avg. Ct ± SD)** |
| *L. micdadei*  | 23.33 ± 0.31 | 23.55 ± 0.18 | 24.81 ± 0.16 | 27.46 ± 0.30 | 29.72 ± 0.46 |
| *L. longbeachae*  | 26.04 ± 0.14 | 26.40 ± 0.12 | 27.01 ± 0.28 | 29.68 ± 0.22 | 32.41 ± 0.50 |
| *L. bozemanii*  | 26.03 ± 0.21 | 26.68 ± 0.17 | 27.42 ± 0.22 | 30.77 ± 0.35 | 32.43 ± 0.66 |
| *L. anisa* | 25.08 ± 0.33 | 24.37 ± 0.32 | 25.37 ± 0.28 | 26.28 ± 0.35 | 27.79 ± 0.27 |

Ct, Crossing threshold value

SD, standard deviation