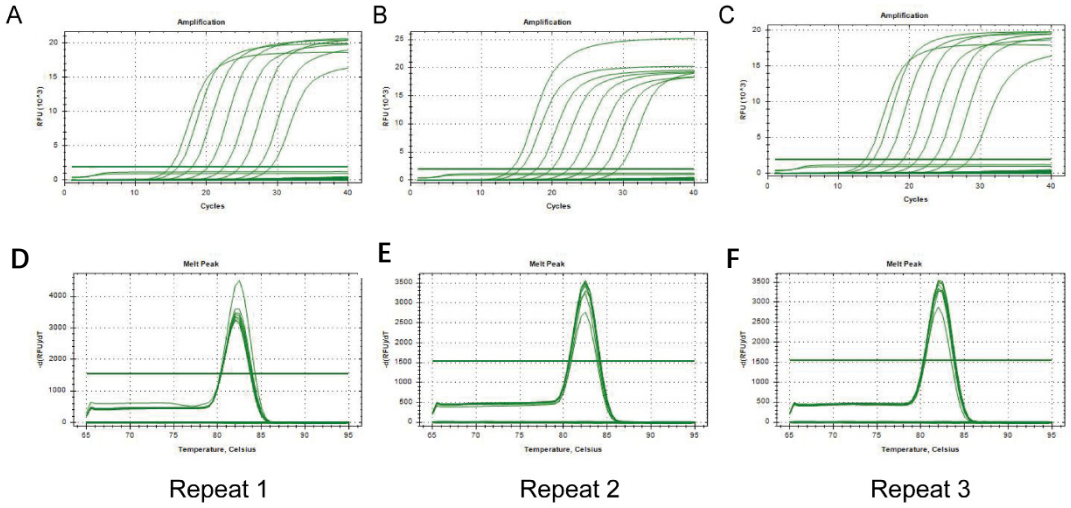
**Supplementary Table S1. FeKoV0813 The primers used in this study.**

| Primer name | Sequences (5′-3′) | Location | PCR Product size |
|---|---|---|---|
| qPCRkubo-F | ACTGCCATGCTCTCCTGCTTT | 3220-3240 | 208bp |
| qPCRkubo-R | ATGAAATGAGAGTTGCATTAG | 3407-3427 | |
| Kubu-Probe | CCAGACCAGTCCTCCCACCCGTAG | 3474-3497 | |

**Supplementary Table S2. Transcriptome Sequence Alignment Rate.**

| Library | Assigned reads | Ambiguous reads | Kobuvirus (TPM) |
|---|---|---|---|
| Small intestine | 35,715,962 | 1,468,708 | 25,664.92 |
| Lung | 39,348,817 | 635,599 | 0 |
| Liver | 42,011,153 | 1,409,268 | 0 |
| Trachea | 33,825,845 | 1,300,235 | 174.9487 |
| Kindney | 36,178,023 | 2,911,787 | 10.3412 |
| Heart | 56,692,328 | 2,221,284 | 1.5633 |
| Pancreas | 30,894,602 | 1,262,694 | 4.0112 |




**Supplementary Figure S1**. Amplification and melt curve analysis of the quantitative PCR (qPCR) assay. (A–C) Amplification curves obtained from 10-fold serial dilutions of the standard template ranging from $10^1$ to $10^8$ copies per reaction. The X-axis represents the cycle number, and the Y-axis represents the relative fluorescence units (RFU). (D–F) Melt peak analysis of the corresponding qPCR products. A single, sharp melting peak was observed at approximately 82.5°C for all concentrations, indicating high primer specificity and the absence of primer-dimers or non-specific amplifications. Data are representative of three independent replicates.