Supplemental Information

Human Intestinal Organoids Recapitulate Enteric Infections of Enterovirus and Coronavirus

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Supplementary Information
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Xiaoyu Zhao\textsuperscript{1,2}, Cun Li\textsuperscript{2}, Xiaojuan Liu\textsuperscript{2}, Man Chun Chiu\textsuperscript{2}, Dong Wang\textsuperscript{2}, Yuxuan Wei\textsuperscript{2}, Hin Chu\textsuperscript{1,2}, Jian-Piao Cai\textsuperscript{2}, Ivy Hau-Yee Chan\textsuperscript{3}, Kenneth Kak-Yuen Wong\textsuperscript{3}, Jasper Fuk-Woo Chan\textsuperscript{1,2,4}, Kelvin Kai-Wang To\textsuperscript{1,2,4}, Kwok Yung Yuen\textsuperscript{1,2,4,5}, Jie Zhou\textsuperscript{1,2,5*}
Figure S1. Representative images of human intestinal organoids in expansion and different differentiation media. Related to Figure 1.

|       | Day 1 | Day 3 | Day 5 |
|-------|-------|-------|-------|
| Ex    | ![Image] | ![Image] | ![Image] |
| H10   | ![Image] | ![Image] | ![Image] |
| H5    | ![Image] | ![Image] | ![Image] |
| H0    | ![Image] | ![Image] | ![Image] |
Figure S2. Comparable infection rate of SARS-CoV and SARS-CoV-2 in the differentiated human enteroids. Related to Figure 5. At 10 hours after inoculation with a MOI of 2, SARS-CoV- and SARS-CoV-2-infected organoids were fixed, stained with an α-dsRNA and applied to flow cytometry. (A) The histogram shows the result of one representative experiment. (B) Mean and SD of three independent experiments are presented.
Table S1. The primer sequences for RT-qPCR assay. Related to all figures.

| Gene   | Sequence | Gene   | Sequence |
|--------|----------|--------|----------|
| GAPDH  | (F) 5'-ATTCCACCACATGGCAAATTC-3' | IFN-αL | (F) 5'-ACCTAGACGACAATTAAGAGG-3' |
|        | (R) 5'-CGCTCTGGAAAGATGCTGAT-3' |        | (R) 5'-CTGAAACCAAGTCTGAT-3' |
| VILI   | (F) 5'-GACGATTACCCTGCTACTCT-3' | OAS1   | (F) 5'-TGTCAGAGGTTAGGAGGT-3' |
|        | (R) 5'-GCTGAATAAGCGTGCTGAAATTT-3' |        | (R) 5'-CCGGCATTTAATTCTGGTAC-3' |
| ALP1   | (F) 5'-CATGGACGCTTTCCACA-3' | MVI    | (F) 5'-TTTCCTGGAGGACATCC-3' |
|        | (R) 5'-CCGACATGCTGCACTCAT-3' |        | (R) 5'-CTGAGACGCTTCTACAC-3' |
| LYZ    | (F) 5'-CGCCTACTGGTTAATGATG-3' | HERC5  | (F) 5'-CGAAAGTTGAAATTCTGGC-3' |
|        | (R) 5'-CATACGCGAGTTCTGCACTAC-3' |        | (R) 5'-CTGAGACGCTTCTACAC-3' |
| MUC2   | (F) 5'-GCCAGCTTCAAGGAGAC-3' | IL-6   | (F) 5'-GGTACACCTCGAGGCACT-3' |
|        | (R) 5'-GACGGAATCTCTGCTGAC-3' |        | (R) 5'-CTGACCTTTTCTGTCTTC-3' |
| CHGA   | (F) 5'-TGACCTCAACGATGCTATT-3' | IL-8   | (F) 5'-GGCACAATACTTTCAGAGAC-3' |
|        | (R) 5'-CTGTCCTGCTCTGCTCTC-3' |        | (R) 5'-ACACAGACGTGCTGAGATC-3' |
| LGR5   | (F) 5'-CTCCAGGCTGTGGTGGTG-3' | IP-10  | (F) 5'-GAATTATATCTTCAGGCAAT-3' |
|        | (R) 5'-GAGGCTCTGAGGAGGGAAG-3' |        | (R) 5'-TCACCTTTCCTGTCTTGTCA-3' |
| IFN-α  | (F) 5'-AGAATCACTCTCTATCTGAAAGA-3' | TNF-αa | (F) 5'-GGGTCCAGCCGGTCTGGTCTC-3' |
|        | (R) 5'-TCATGATTCTCTGCTGCAACCT-3' |        | (R) 5'-ACACAGACGTGCTGAGATC-3' |
| IFN-β  | (F) 5'-GGCAGATTCAAGCCTC-3' | RANTES | (F) 5'-CCCCTCACTCTCCTAC-3' |
|        | (R) 5'-AGGGATACAGCTACGTG-3' |        | (R) 5'-TCAGGCATTCTCCTC-3' |
| IFN-γ  | (F) 5'-CTAATTATCGTGAATGCTTTA-3' | IL-1β  | (F) 5'-AAGCTGAAGCCTGAAACAGC-3' |
|        | (R) 5'-ACAGTGACGCCCATCCTGA-3' |        | (R) 5'-AGGGATACAGCTACGTG-3' |
| IFN-λ1 | (F) 5'-CACATTGGACGCTTCAATCTC-3' | IL-18  | (F) 5'-GCTTGAACTAAAAATACGTG-3' |
|        | (R) 5'-CCAGGGACACTCCTTGTG-3' |        | (R) 5'-GAAGATCAGGAAATTATGAT-3' |
| IFN-λ2 | (F) 5'-TCAGCTACGCGTCCAG-3' | MCP-1  | (F) 5'-CCCCGTCACCTGCTTGAT-3' |
|        | (R) 5'-CAGGCTCAGATGCTGAT-3' |        | (R) 5'-TCAGCTACGCGTCCAG-3' |
| IFN-λ3 | (F) 5'-TAAGAGGCGCAAAGATGCTC-3' | MIP-1a | (F) 5'-CTCTGACGATTCTGCTGAC-3' |
|        | (R) 5'-CTGTCGACGAGCATCCC-3' |        | (R) 5'-TCAGCTACGCGTCCAG-3' |
| IFIT1  | (F) 5'-CTGACGTCACTATGGAAGATAG-3' | Pan-EV | (F) 5'-GCGCCCTGATGCGCCATT-3' |
|        | (R) 5'-AGGGATACAGCTACGTG-3' | VP1    | (R) 5'-ATTGTCACTAAGACAG-3' |
|        |        |        | Probe   | 5'-FAM-CGGACACCAAAAGTAGTCCGCTTCJABFQ-3' |