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Supplemental Information

Human Intestinal Organoids Recapitulate Enteric Infections of Enterovirus and Coronavirus

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Human intestinal organoids recapitulate enteric infections of enterovirus and coronavirus

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Figure S1. Representative images of human intestinal organoids in expansion and different differentiation media. Related to Figure 1.

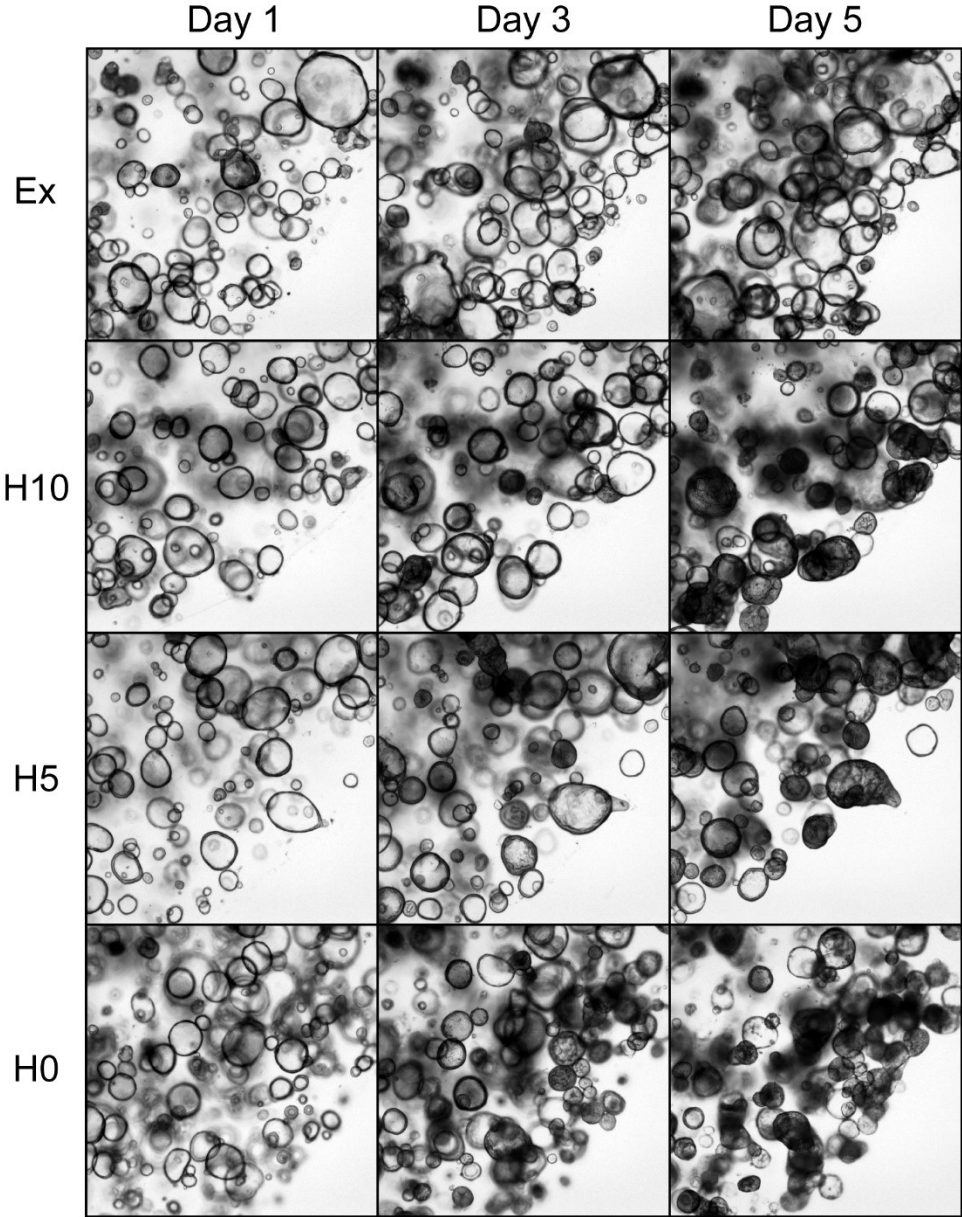
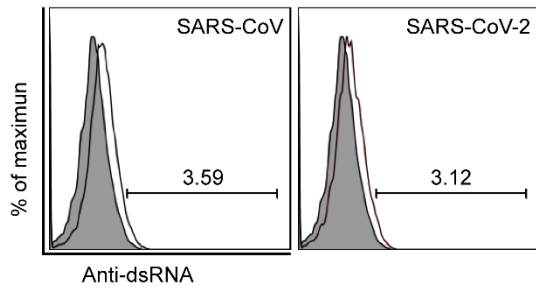


Figure S2. Comparable infection rate of SARS-CoV and SARS-CoV-2 in the differentiated human enteroids. Related to Figure 5. At 10 hours after inoculation with a MOI of 2, SARS-CoV- and SARS-CoV-2- infected organoids were fixed, stained with an α -dsRNA and applied to flow cytometry. (A) The histogram shows the result of one representative experiment. (B) Mean and SD of three independent experiments are presented.

A



B

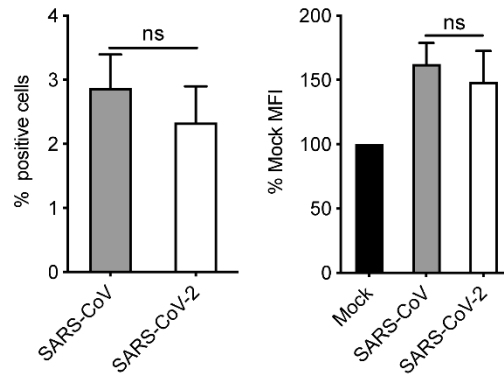


Table S1. The primer sequences for RT-qPCR assay. Related to all figures.

Gene	Sequence	Gene	Sequence
<i>GAPDH</i>	(F) 5'-ATTCACCCATGGCAAATTC-3' (R) 5'-CGCTCCTGGAAAGATGGTGAT-3'	<i>IFI44L</i>	(F) 5'-AACCTAGACGACATAAAGAGG-3' (R) 5'-CTGAAACCAAGTCTGCATAG-3'
<i>VILI</i>	(F) 5'-GCAGCATTACCTGCTCTACGTT-3' (R) 5'-GCTTGATAAGCTGATGCTGTAATTT-3'	<i>OAS1</i>	(F) 5'-TGTCCAAGGTGGTAAAGGGTG-3' (R) 5'-CCGGCGATTAACTGATCCTG-3'
<i>ALPI</i>	(F) 5'-CATGGACCGCTTCCATA-3' (R) 5'-GGCACCTGTCTGTCCACAT-3'	<i>MX1</i>	(F) 5'-GTTTCCGAAGTGGACATCGCA-3' (R) 5'-CTGCACAGGTTGTTCTCAGC-3'
<i>LYZ</i>	(F) 5'-CCGCTACTGGTGTA ATGATGG-3' (R) 5'-CATCAGCGATGTTATCTTGCAG-3'	<i>HERC5</i>	(F) 5'-CAGAAAGTTGAATTTGTCGC-3' (R) 5'-CTGAGTCACTCTATACCCAAC-3'
<i>MUC2</i>	(F) 5'-GCCAGCTCATCAAGGACAG-3' (R) 5'-GCAGGCATCGTAGTAGTGTG-3'	<i>IL-6</i>	(F) 5'-GGTACATCCTCGACGGCATCT-3' (R) 5'-GTGCCTCTTTGCTGCTTTCAC-3'
<i>CHGA</i>	(F) 5'-TGACCTCAACGATGCATTTTC-3' (R) 5'-CTGTCCTGGCTCTTCTGCTC-3'	<i>IL-8</i>	(F) 5'-GGCACAAACTTTCAGAGACAG-3' (R) 5'-ACACAGAGCTGCAGAAATCAGG-3'
<i>LGR5</i>	(F) 5'-CTCCCAGGTCTGGTGTGTTG-3' (R) 5'-GAGGTCTAGGTAGGAGGTGAAG-3'	<i>IP-10</i>	(F) 5'-GAAATTATTCCTGCAAGCCAATTT-3' (R) 5'-TCACCTTCTTTTTTCATTGTAGCA-3'
<i>IFN-α</i>	(F) 5'-AGAATCACTCTCTATCTGAAAGAGAAGAAATA-3' (R) 5'-TCATGATTTCTGCTCTGACAACCT-3'	<i>TNF-α</i>	(F) 5'-GGCTCCAGGCGGTGCTTGTTTC-3' (R) 5'-AGACGGCGATGCGGCTGATG-3'
<i>IFN-β</i>	(F) 5'-GCCGCATTGACCATCT-3' (R) 5'-AGGAGTACAGTCACTGTG-3'	<i>RANTES</i>	(F) 5'-CCCCTCACTATCCTACC-3' (R) 5'-TCACGCCATTCTCCTG-3'
<i>IFN-γ</i>	(F) 5'-CTAATTATTCGGTAACTGACTTGA-3' (R) 5'-ACAGTTCAGCCATCACTTGGA-3'	<i>IL-1β</i>	(F) 5'-AAGCTGATGGCCCTAAACAG-3' (R) 5'-AGGTGCATCGTGCACATAAG-3'
<i>IFN-λ1</i>	(F) 5'-CACATTGGCAGGTTCAAATCTCT-3' (R) 5'-CCAGCGGACTCCTTTTGG-3'	<i>IL-18</i>	(F) 5'-GCTTGAATCTAAATTATCAGTC-3' (R) 5'-GAAGATTCAAATTGCATCTTAT-3'
<i>IFN-λ2</i>	(F) 5'-TCCAGTCAACGGTCAGCA-3' (R) 5'-CAGCCTCAGAGTGTTCCTTCT-3'	<i>MCP-1</i>	(F) 5'-CCCCAGTCACTGTGTTAT-3' (R) 5'-TGGAACTCTGAACCCACTTC-3'
<i>IFN-λ3</i>	(F) 5'-TAAAGAGGGCCAAAGATGCCTT-3' (R) 5'-CTGGTCCAAGACATCCCCC-3'	<i>MIP-1α</i>	(F) 5'-CTCTGCACCATGGCTCTGTCAAC-3' (R) 5'-TGTGGAATCTGCCGGGAGGTGTAG-3'
<i>IFIT1</i>	(F) 5'-TTGATGACGATGAAATGCCTGA-3' (R) 5'-CAGGTCACCAGACTCCTCAC-3'	<i>Pan-EV</i>	(F) 5'-GCCCCCTGAATGCGGCTAAT-3'
<i>OASL</i>	(F) 5'-GTACCAGCAGTATGTGAAAG-3' (R) 5'-ATGGTTAGAAGTTCAAGAGC-3'	<i>VP1</i>	(R) 5'-ATTGTCACCATAAGCAGYCA-3'
		Probe	5'-FAM-CGGACACCCAAAGTAGTCGGTTCCG-IABkFQ-3'