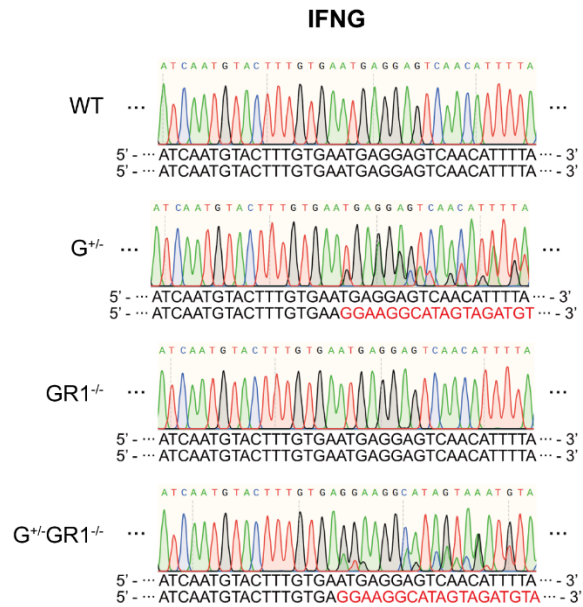
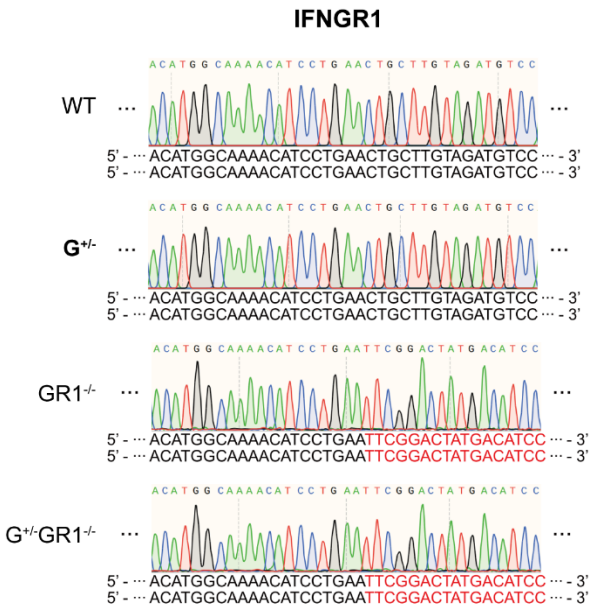
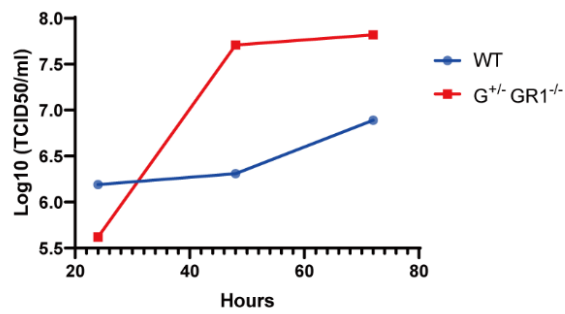
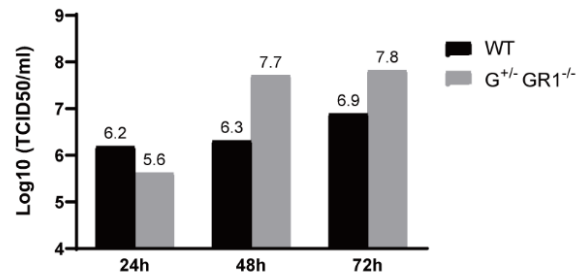
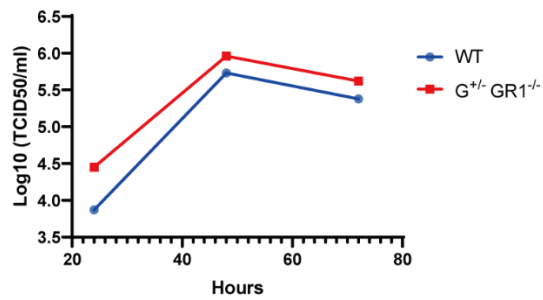
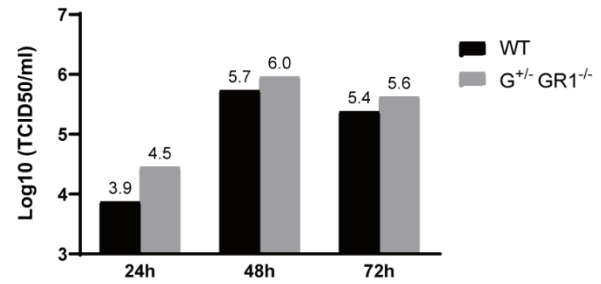


a**b**

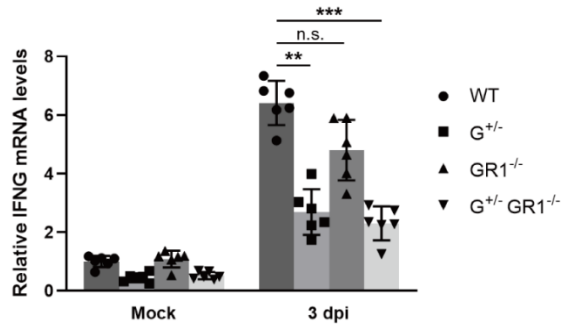
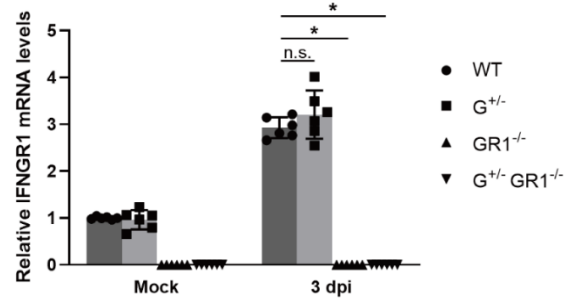
Supplementary Figure S1. Sanger sequencing analysis of *IFNG*- and *IFNGR1*-knockout Vero cell lines. (a) Sequencing results of the *IFNG* locus. WT, wild-type Vero cell line; $G^{+/-}$, heterozygous deletion of *IFNG* in the Vero cell line; $GR1^{-/-}$, homozygous deletion of *IFNGR1* in the Vero cell line; $G^{+/-}GR1^{-/-}$, combined deletion of *IFNG* and *IFNGR1* in the Vero cell line. (b) Sequencing results of the *IFNGR1* locus in WT, $G^{+/-}$, $GR1^{-/-}$, and $G^{+/-}GR1^{-/-}$ cell lines.

a**b**

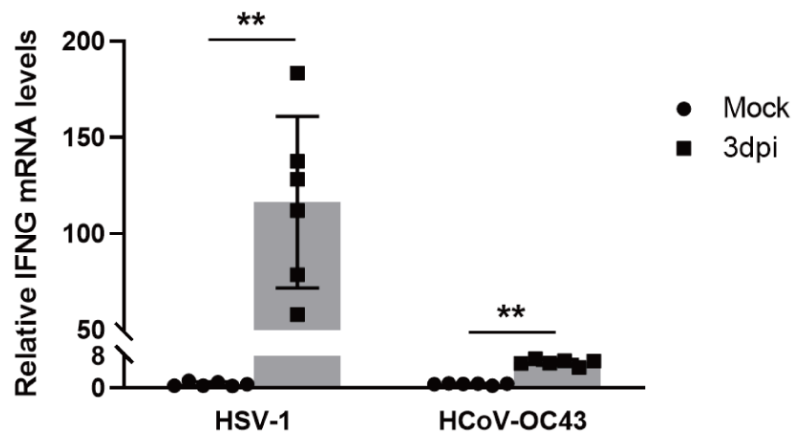
Supplementary Figure S2. Comparison of HSV-1 virus growth in the wild-type Vero cell line and *IFNG/IFNGR1*-knockout Vero cell line. (a) HSV-1 growth curves in the wild-type Vero cell line (WT) and *IFNG/IFNGR1*-double-knockout cell line (G^{+/-}GR1^{-/-}). Infectious titer was measured at the indicated time points in each cell line by endpoint dilution assay. (b) Bar graph showing TCID₅₀ values for HSV-1 measured at 24-hour intervals.

a**b**

Supplementary Figure S3. Comparison of HCoV-OC43 virus growth in the wild-type Vero cell line and *IFNG/IFNGR1*-knockout Vero cell line. (a) HSV-1 growth curves in the wild-type Vero cell line (WT) and *IFNG/IFNGR1*-double-knockout cell line (G^{+/-}GR1^{-/-}). Infectious titer was measured at the indicated time points in each cell line by endpoint dilution assay. (b) Bar graph showing TCID₅₀ values for HCoV-OC43 measured at 24-hour intervals.

a**b**

Supplementary Figure S4. Relative expression levels of *IFNG* and *IFNGR1* after HCoV-OC43 infection in *IFNG*- and *IFNGR1*-knockout cell lines. (a) Relative expression levels of *IFNG* in G^{+/-}, GR1^{-/-}, G^{+/-}GR1^{-/-} cell lines. *IFNG* mRNA levels were normalized to those of wild-type cells. Results are shown as means ± SD of six independent replicates (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, n.s., not significant). (b) Relative expression levels of *IFNGR1* in G^{+/-}, GR1^{-/-}, and G^{+/-}GR1^{-/-} cell lines. *IFNGR1* mRNA levels were normalized to those of wild-type cells.



Supplementary Figure S5. Relative expression levels of *IFNG* after viral infection. *IFNG* mRNA levels of infected Vero cells were normalized to those of uninfected cells. *IFNG* mRNA levels were measured by RT-qPCR after 48 hours of HSV-1 infection, and 72 hours of HCoV-OC43, respectively. Results are shown as means \pm SD of six independent replicates (** $p < 0.01$).

Supplementary Table S1. Deleted sequences in *IFNG*- and *IFNGR1*-knockout cell lines

Genotype	<i>IFNG</i> Sequences	Mutations
Wild-type	5' - ...CTTTGTGAATGAGGAGTC...TACACTACAGGAAGGCAT... - 3'	
G ^{+/-}	5' - ...CTTTGTGAA-----GGAAGGCAT... - 3'	1,405 bp deletion (<i>IFNG</i> Δexon1)
GR1 ^{-/-}	5' - ...CTTTGTGAATGAGGAGTC...TACACTACAGGAAGGCAT... - 3'	
G ^{+/-} GR1 ^{-/-}	5' - ...CTTTGTGA-----GGAAGGCAT... - 3'	1,406 bp deletion (<i>IFNG</i> Δexon1)
Genotype	<i>IFNGR1</i> Sequences	Mutations
Wild-type	5' - ...CATCCTGAACTGCTTGTA...GATCCTGTTTTCGGACTAT... - 3'	
G ^{+/-}	5' - ...CATCCTGAACTGCTTGTA...GATCCTGTTTTCGGACTAT... - 3'	
GR1 ^{-/-}	5' - ...CATCCTGAA-----TTCGGACTAT... - 3'	1,651 bp deletion (<i>IFNGR1</i> Δexon3)
G ^{+/-} GR1 ^{-/-}	5' - ...CATCCTGAA-----TTCGGACTAT... - 3'	1,651 bp deletion (<i>IFNGR1</i> Δexon3)

Supplementary Table S2. gRNA sequences for targeting *IFNG* and *IFNGR1*

Target gene	gRNA sequences with PAM	Target region
<i>IFNG</i>	5'-GATCAATGTACTTTGTGAATG AGG-3'	Exon 1
	5'-GTGACGTAATACACTACAGGA AGG-3'	Exon 1 ~ Exon 2
<i>IFNGR1</i>	5'-GTGGACATCTACAAGCAGTTC AGG-3'	Exon 2 ~ Exon 3
	5'-GGATGTCATAGTCCGAAAAC AGG-3'	Exon 3 ~ Exon 4

Supplementary Table S3. Target-specific primers for PCR-based genotyping

Target gene	Primer sequences		PCR product size
<i>IFNG</i>	Forward	5'-CCTGTGTGGCTTGTATTATATTTC-3'	1,831 bp
	Reverse	5'-GTTCAACAAAGCTGATGATACTCC-3'	
<i>IFNGR1</i>	Forward	5'-GTACCAGATCATGCCACAGG-3'	2,061 bp
	Reverse	5'-ATGCAGACGGTGTGGTAATC-3'	

Supplementary Table S4. Target-specific primers for Sanger sequencing

Target gene	Primer sequences	
<i>IFNG</i>	Forward-1	5'-CCTGTGTGGCTTGTATTATATTTC-3'
	Forward-2	5'-CAAATGCCACAAAACCTTAG-3'
	Forward-3	5'-GGTGAGAACTCATTGAGATG-3'
	Reverse 1	5'-GTTCAACAAAGCTGATGATACTCC-3'
<i>IFNGR1</i>	Forward-1	5'-GTACCAGATCATGCCACAGG-3'
	Forward-2	5'-AGGCTGAGGCAGGAGAATGG-3'
	Forward-3	5'-TCTGATCACGTTGGTGATCC-3'
	Reverse-1	5'-ATGCAGACGGTGTGGTAATC-3'

Supplementary Table S5. Gene-specific primers for RT-qPCR analyses

Target gene	Primer sequences	
<i>IFNG</i>	Forward	5'-TGGAAAGAGGAGAGTGACAG-3'
	Reverse	5'-TCAGCTTTTTCGAAGTCATCC-3'
<i>IFNGR1</i>	Forward	5'-AACTATGGTGTTAAGAATGC-3'
	Reverse	5'-GGTCCAATTTTTCCATCTCG-3'
<i>TNF-α</i>	Forward	5'-GCTGCACTTTGGAGTGATCG-3'
	Reverse	5'-CCAGCTGGTTATCTGTCAGC-3'
<i>IL-15</i>	Forward	5'-CCCAGTTGCAAGGTAACAGC-3'
	Reverse	5'-TCCTCACATTCTTTGCATCC-3'
<i>IRF1</i>	Forward	5'-CCATTACACAGGCCGATAC-3'
	Reverse	5'-GGAATCCCCACATGACTTCC-3'
<i>IL-6</i>	Forward	5'-AAGGAGACATGTAACAGGAG-3'
	Reverse	5'-CTAGGTATACCTCAAACCTCC-3'
<i>Nectin-1</i>	Forward	5'-CTGCAGTATTAGTGTCTCTCC-3'
	Reverse	5'-GTGCAGGATAAAGGAGATGC-3'
<i>TLR2</i>	Forward	5'-CGAATACACAGTGTAACAGG-3'
	Reverse	5'-GAAAAGAGTCAAGTTGCTCC-3'
<i>TLR3</i>	Forward	5'-GACAAACCTCACTATGCTCG-3'
	Reverse	5'-CCGTTTCAAATTCAGGTACC-3'
<i>TLR7</i>	Forward	5'-TGAGTCTCTTAGAACTCTGG-3'
	Reverse	5'-GGCATACCATCAAAAACCTCC-3'