

Table S1 Calculation results of virus titer determination for each sample by Reed-Muench method

Sample	Dilution coefficient	CPE count	No CPE count	Cumulative count with CPE	Cumulative count without CPE	CPE%	Distance ratio ^b	IgTCID ₅₀ /0.1 mL ^c
I1	10 ⁻¹	5	0	20	0	100	0.50	-4.50
	10 ⁻²	5	0	15	0	100		
	10 ⁻³	5	0	10	0	100		
	10 ⁻⁴	4	1	5	1	83		
	10 ⁻⁵	1	4	1	5	17		
I2	10 ⁻¹	5	0	18	0	100	0.25	-4.25
	10 ⁻²	5	0	13	0	100		
	10 ⁻³	4	1	8	1	89		
	10 ⁻⁴	4	1	4	2	67		
	10 ⁻⁵	0	5	0	7	0		
I3	10 ⁻¹	5	0	10	0	100	0.50	-2.50
	10 ⁻²	3	2	5	2	71		
	10 ⁻³	2	3	2	5	29		
	10 ⁻⁴	0	5	0	10	0		
	10 ⁻⁵	0	5	0	15	0		
I4	10 ⁻¹	5	0	14	0	100	0.32	-3.32
	10 ⁻²	5	0	9	0	100		
	10 ⁻³	3	2	4	2	67		
	10 ⁻⁴	1	4	1	6	14		
	10 ⁻⁵	0	5	0	11	0		
I5	10 ⁻¹	5	0	9	0	100	0.32	-2.32
	10 ⁻²	3	2	4	2	67		
	10 ⁻³	1	4	1	6	14		
	10 ⁻⁴	0	5	0	11	0		
	10 ⁻⁵	0	5	0	16	0		
I6	10 ⁻¹	5	0	13	0	100	0.17	-3.17
	10 ⁻²	5	0	8	0	100		
	10 ⁻³	3	2	3	2	60		
	10 ⁻⁴	0	5	0	7	0		
	10 ⁻⁵	0	5	0	12	0		
II1	10 ⁻¹	5	0	22	0	100	0.83	-5.83
	10 ⁻²	5	0	17	0	100		
	10 ⁻³	5	0	12	0	100		
	10 ⁻⁴	5	0	7	0	100		
	10 ⁻⁵	2	3	2	3	40		

Table S1 (continued)

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Sample	Dilution coefficient	CPE count	No CPE count	Cumulative count with CPE	Cumulative count without CPE	CPE%	Distance ratio ^b	IgTCID50/0.1 mL ^c
II2	10 ⁻¹	5	0	20	0	100	0.50	-4.50
	10 ⁻²	5	0	15	0	100		
	10 ⁻³	5	0	10	0	100		
	10 ⁻⁴	3	2	5	2	71		
	10 ⁻⁵	2	3	2	5	29		
II3	10 ⁻¹	5	0	20	0	100	0.50	-4.50
	10 ⁻²	5	0	15	0	100		
	10 ⁻³	5	0	10	0	100		
	10 ⁻⁴	3	2	5	2	71		
	10 ⁻⁵	2	3	2	5	29		
II4	10 ⁻¹	5	0	20	0	100	0.50	-5.50
	10 ⁻²	5	0	15	0	100		
	10 ⁻³	5	0	10	0	100		
	10 ⁻⁴	3	2	5	2	71		
	10 ⁻⁵	2	3	2	5	29		
II5	10 ⁻¹	5	0	17	0	100	0.83	-4.83
	10 ⁻²	5	0	12	0	100		
	10 ⁻³	5	0	7	0	100		
	10 ⁻⁴	2	3	2	3	40		
	10 ⁻⁵	0	5	0	8	0		
II6	10 ⁻¹	5	0	22	0	100	0.83	-5.83
	10 ⁻²	5	0	17	0	100		
	10 ⁻³	5	0	12	0	100		
	10 ⁻⁴	5	0	7	0	100		
	10 ⁻⁵	2	3	2	3	40		
III1	10 ⁻¹	5	0	21	0	100	0.68	-5.68
	10 ⁻²	5	0	16	0	100		
	10 ⁻³	5	0	11	0	100		
	10 ⁻⁴	4	1	6	1	86		
	10 ⁻⁵	2	3	2	4	33		
III2	10 ⁻¹	5	0	18	0	100	0.17	-5.17
	10 ⁻²	5	0	13	0	100		
	10 ⁻³	3	2	8	2	80		
	10 ⁻⁴	3	2	5	4	56		
	10 ⁻⁵	2	3	2	7	22		

Table S1 (continued)

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Sample	Dilution coefficient	CPE count	No CPE count	Cumulative count with CPE	Cumulative count without CPE	CPE%	Distance ratio ^b	IgTCID ₅₀ /0.1 mL ^c
III3	10 ⁻¹	5	0	20	0	100	0.50	-5.50
	10 ⁻²	5	0	15	0	100		
	10 ⁻³	5	0	10	0	100		
	10 ⁻⁴	3	2	5	2	71		
	10 ⁻⁵	2	3	2	5	29		
III4	10 ⁻¹	5	0	22	0	100	0.83	-5.83
	10 ⁻²	5	0	17	0	100		
	10 ⁻³	5	0	12	0	100		
	10 ⁻⁴	5	0	7	0	100		
	10 ⁻⁵	2	3	2	3	40		
III5	10 ⁻¹	5	0	22	0	100	0.83	-5.83
	10 ⁻²	5	0	17	0	100		
	10 ⁻³	5	0	12	0	100		
	10 ⁻⁴	5	0	7	0	100		
	10 ⁻⁵	2	3	2	3	40		
III6	10 ⁻¹	5	0	21	0	100	0.68	-5.68
	10 ⁻²	5	0	16	0	100		
	10 ⁻³	5	0	11	0	100		
	10 ⁻⁴	4	1	6	1	86		
	10 ⁻⁵	2	3	2	4	33		

CPE% = Cumulative count with CPE / (Cumulative count with CPE + Cumulative count without CPE) × 100%. Distance ratio = (CPE% - 50%) / [CPE%_(>50%) - CPE%_(<50%)]. IgTCID₅₀ = lg(Dilution coefficient_(>50%)) + Distance ratio × (-1), where -1 refers to the logarithm of the dilution gradient. The physical implication of the value indicates that 0.1 mL of this virus suspension with a TCID₅₀ dilution coefficient can produce CPE in 50% of inoculated wells. CPE, cytopathic effect, refers to the cellular degeneration produced by viral infestation of tissue culture cells (i.e., rounding, shedding, and aggregation), which can be utilized for virus quantification.

Table S2 Primers information for IL-6, IFN-γ, and housekeeping gene glyceraldehyde 3-phosphate dehydrogenase (GAPDH)

Gene	Sequences
IL-6	Sense: 5'-TACCACTTCACAAGTCGGAGGC-3'
	Antisense: 5'-CTGCAAGTGCATCATCGTTGTTC-3'
IFN-γ	Sense: 5'-ATGAACGCTACACACTGCAT-3'
	Antisense: 5'-AGTCTGAGGTAGAAAGAGAT-3'
GAPDH	Sense: 5'-AGTCTGAGGTAGAAAGAGAT-3'
	Antisense: 5'-ATGCCAGTGAGCTTCCCGTTTCAG-3'

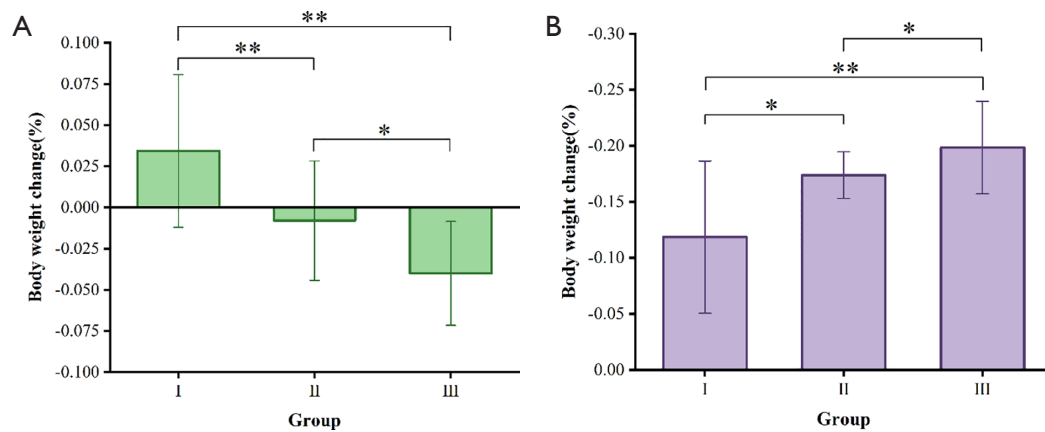


Figure S1 The differences in body weight change among groups. (A) Body weight changes of mice in every group on the 10th experimental day. (B) Body weight changes of mice in every group on the 15th experimental day. Group I: control group (20 °C, 0 m/s); Group II: neutral temperature airflow group (20 °C, 1.5 m/s); Group III: cold temperature airflow group (15 °C, 1.5 m/s). *, P<0.05; **, P<0.01.

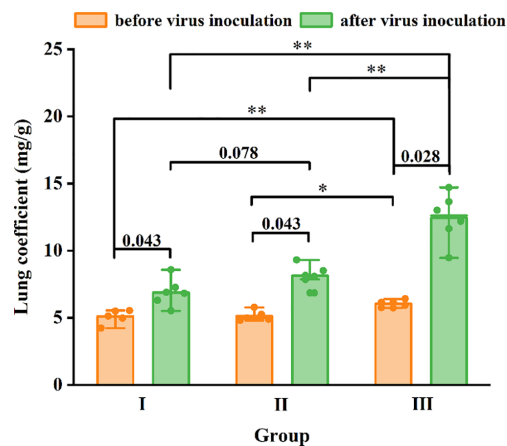


Figure S2 Lung relative weight normalized by the initial body weight in each group before and after virus intranasal instillation. Group I: control group (20 °C, 0 m/s); Group II: neutral temperature airflow group (20 °C, 1.5 m/s); Group III: cold temperature airflow group (15 °C, 1.5 m/s). *, P<0.05; **, P<0.01.