

**Table S2.** Fitting of viral load data to the best-fitting ARIMA( $p, d, q$ )<sup>1</sup> model based on the minimum BIC criterium. Errors represent  $\pm 1$  SE.

Virus	Cells	MOI	Lineage	ARIMA	BIC	Intercept	Slope	Moving average	Autocorrelation 1	Autocorrelation 2
HCoV-OC43	BHK-21	High	1	0, 0, 1	64.54	8.717 $\pm$ 0.143	0.015 $\pm$ 0.005	0.319 $\pm$ 0.118		
			2	1, 0, 0	142.25	11.779 $\pm$ 0.386	0.025 $\pm$ 0.013		0.394 $\pm$ 0.138	
			3	0, 0, 0	232.22	18.415 $\pm$ 0.612	0.041 $\pm$ 0.022			
		Low	1	1, 0, 0	546.11		-0.820 $\pm$ 1.228		0.821 $\pm$ 0.076	
			2	2, 0, 1	143.65	13.336 $\pm$ 0.465	0.017 $\pm$ 0.016	0.565 $\pm$ 0.161	-0.302 $\pm$ 0.176	0.565 $\pm$ 0.136
			3	2, 0, 0	243.91	18.850 $\pm$ 1.352	0.043 $\pm$ 1.346		0.268 $\pm$ 0.268	0.284 $\pm$ 0.146
	HCT-8	High	1	0, 0, 0	631.98		-48.459 $\pm$ 1.346			
			2	0, 0, 0	104.77	14.737 $\pm$ 0.365	-0.097 $\pm$ 0.020			
			3	0, 0, 0	-22.13	6.895 $\pm$ 0.050	-0.018 $\pm$ 0.003			
		Low	1	0, 0, 1	640.54		-635.858 $\pm$ 74.643	0.720 $\pm$ 0.137		
			2	1, 0, 0	346.36		-6.764 $\pm$ 0.807		0.462 $\pm$ 0.462	
			3	2, 0, 0	374.66		-4.469 $\pm$ 2.255		0.425 $\pm$ 0.425	0.335 $\pm$ 0.183
MHV	CCL-9.1	High	1	0, 0, 0	66.58	7.8304 $\pm$ 0.367	-0.036 $\pm$ 0.030			
			2	0, 0, 0	33.85	5.584 $\pm$ 0.174	0.007 $\pm$ 0.014			
			3	0, 0, 0	-15.11	3.793 $\pm$ 0.002	0.057 $\pm$ 0.005			
		Low	1	1, 0, 0	446.34		-789.109 $\pm$ 330.142	0.781 $\pm$ 0.130		
			2	1, 0, 0	446.46		-697.742 $\pm$ 338.711	0.774 $\pm$ 0.142		
			3	1, 0, 0	446.15		-866.648 $\pm$ 317.089	0.779 $\pm$ 0.125		

<sup>1</sup>ARIMA parameters:  $p \geq 0$ : order of the autoregressive model (number of time lags);  $d \geq 0$ : is the differencing order;  $q \geq 0$ : order of the moving-average model.