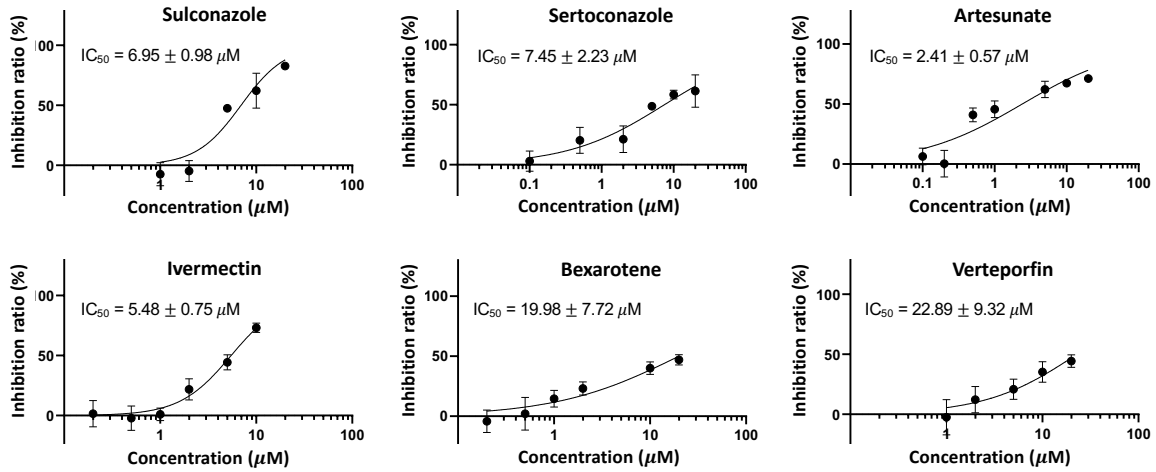
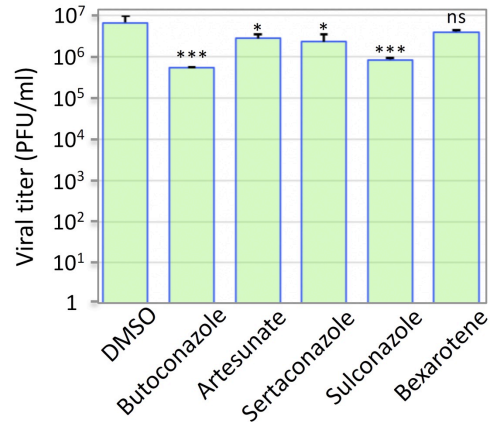


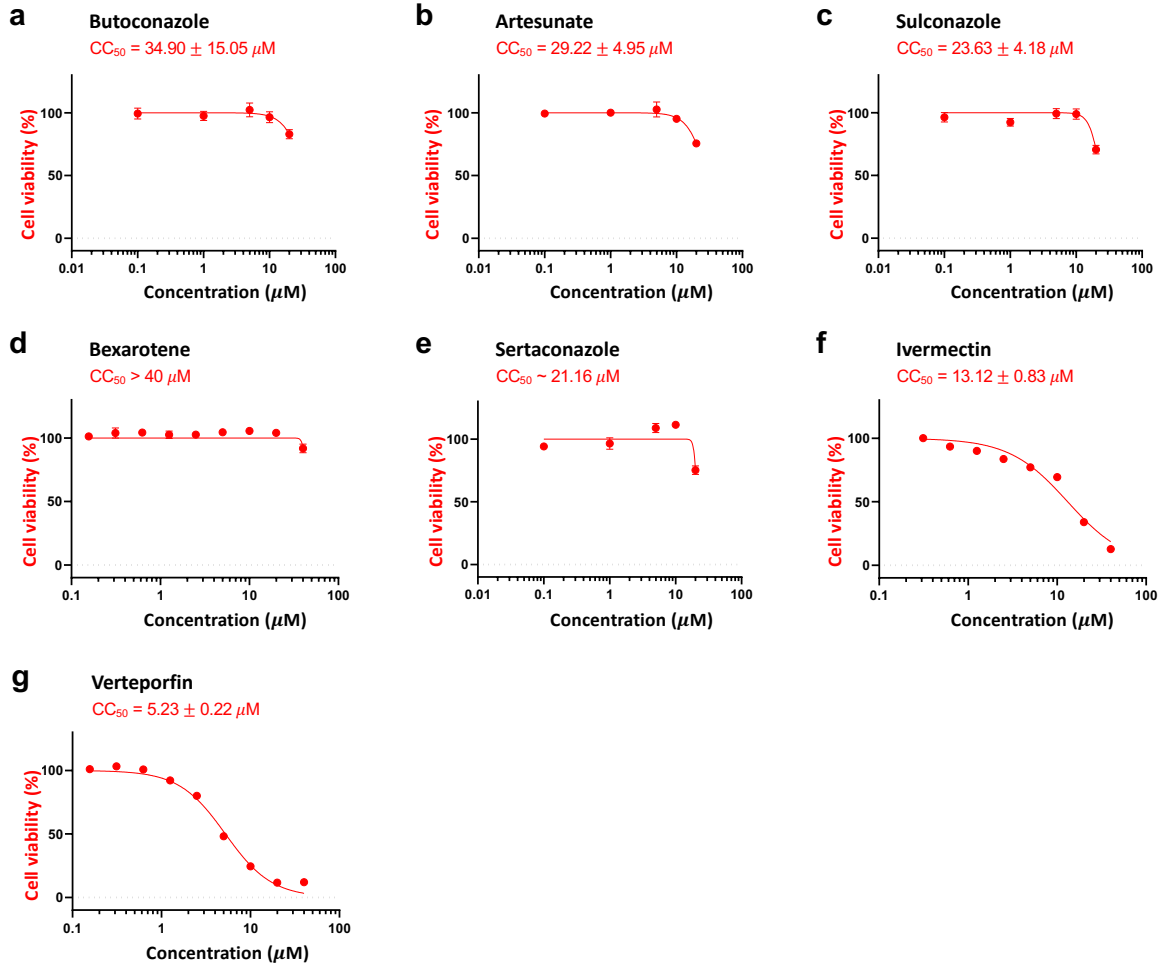
Supporting Fig. S1. Verification of the selected top 120 drugs using the Mpro activity reporter FlipGFP^{Mpro}. Ratio of Mpro activity was calculated based on FlipGFP^{Mpro} fluorescence of drug-incubated HEK293 cells, divided by that of DMSO-treated HEK293 cells. FlipGFP^{Mpro} fluorescence was normalized by mCherry in HEK293 cells, which co-expressed FlipGFP^{Mpro}, mCherry, and Mpro. Data are mean \pm SD (n = 5).



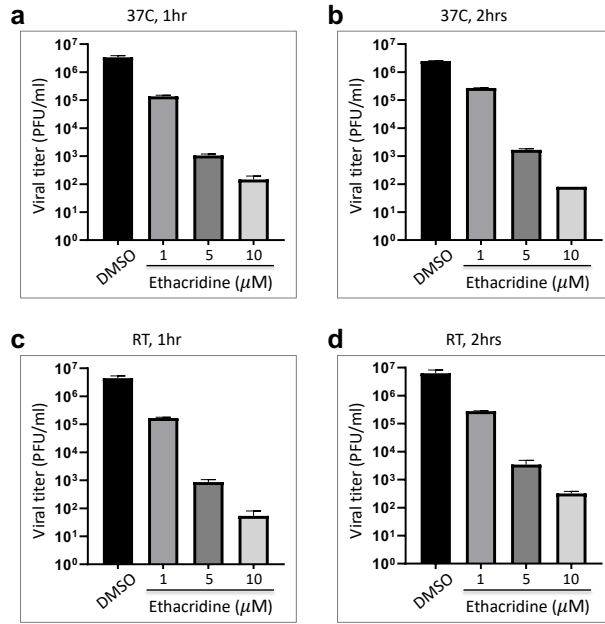
Supporting Fig. S2. Dose-response curve of Mpro inhibition. The Mpro activity was determined as FlipGFP fluorescence normalized by mCherry. The ratios of Mpro activity were calculated by normalizing Mpro activity with that of cells treated with DMSO. Inhibition ratio was calculated as $(1 - (\text{ratio of Mpro activity})) \times 100\%$. Data are mean \pm SD ($n = 5$). IC_{50} was represented as mean \pm SEM ($n = 5$).



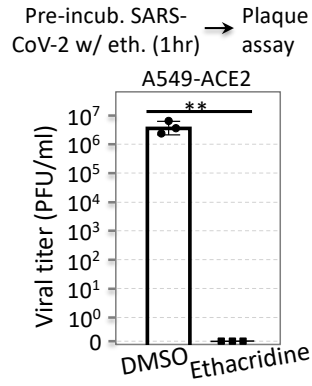
Supporting Fig. S3. Antiviral activities of the identified drugs. Antiviral activities of five drugs (5 μ M) were quantified by a plaque assay with SARS-CoV-2 in Vero E6 cells. Data are mean \pm SD (n = 3). *: p value < 0.05; ***: p value < 0.001. ns: not significant. PFU: plaque-forming unit.



Supporting Fig. S4. Cytotoxicity of the identified drugs. The cytotoxicities of the indicated compounds were determined in Vero E6 cells with the WST-1 assay. CC_{50} is represented as mean \pm SEM (n = 3).



Supporting Fig. S5. Virucide effect of ethacridine on SARS-CoV-2. Effects of ethacridine on the infectivity of SARS-CoV-2 were examined using plaque assay at 37°C (a, b) or in the room temperature (RT) (c, d). SARS-CoV-2 was mixed with ethacridine for 1 or 2 hours before being added to infect Vero E6 cells. Data are mean \pm SEM (n = 3).



Supporting Fig. S6. Quantitative analysis of viral titer by plaque assay in the human cells A549 that stably express ACE2. SARS-CoV-2 was pre-incubated with ethacridine (5 μ M) for 1hr, followed by plaque assay on the human A549 cells stably expressing human ACE2 (A549^{ACE2}).