

**Table S1.** qHTS protocol

| <u>Step</u> | <u>Parameter</u> | <u>Value</u> | <u>Description</u>                                     |
|-------------|------------------|--------------|--|
| 1           | Reagent          | 2 $\mu$ l    | Dispense HEK293-ACE2 cells at 2000 cells/well in media |
| 2           | Time             | 16 - 24 hr   | Incubate at standard cell culture conditions           |
| 3a          | Reagent          | 23 nl        | Dispense library compounds to columns 5-48             |
| 3b          | Reagent          | 23 nl        | Dispense DMSO control to columns 1-4                   |
| 4           | Time             | 1 hr         | Incubate at standard cell culture conditions           |
| 5a          | Reagent          | 2 $\mu$ l    | Dispense bald PP in columns 1-2                        |
| 5b          | Reagent          | 2 $\mu$ l    | Dispense SARS-CoV-2-S PP in columns 3-48               |
| 6           | Centrifugation   | 45 min       | Spinoculation at 453 xg                                |
| 7           | Time             | 48 hr        | Incubate at standard cell culture conditions           |
| 8           | Aspiration       | -4 $\mu$ l   | Supernatant removal via centrifugation                 |
| 9           | Reagent          | 4 $\mu$ l    | Dispense luciferase detection reagent                  |
| 10          | Time             | 5 min        | Incubate at room temperature                           |
| 11          | Detector         |              | Luminescence read                                      |

| <u>Step</u> | <u>Protocol details</u>   |
|-------------|---|
| 1           | Dispense with Multidrop. Growth media: DMEM 10% FBS, 1 mg/ml puromycin    |
| 2           | Overnight incubation at 37 oC, 5% CO <sub>2</sub>                         |
| 3           | Dispense via pintool transfer. Compounds in DMSO.                         |
| 4           | Incubate at 37 oC, 5% CO <sub>2</sub>                                     |
| 5           | Dispense with Multidrop.  |
| 6           | Spinoculation at 1500 rpm (453 xg) at room temperature.                   |
| 7           | Incubate at 37 oC, 5% CO <sub>2</sub>                                     |
| 8           | Blue Washer (BlueCat Bio) gentle spin setting.                            |
| 9           | Dispense Bright-Glo Luciferase detection reagent (Promega) with BioRapr   |
| 10          | Incubate at room temperature.   |
| 11          | PHERAS <sup>®</sup> Star plate reader (BMG Labtech) luminescence setting. |

**Table S2.** Public datasets. Primary screen and follow up assay data can be found at <https://pubchem.ncbi.nlm.nih.gov/> under the following assay IDs (AIDs).

| <b>AID</b> | <b># of Compounds</b> | <b>Concentration response format</b> | <b>Assay</b>          |
|------------|-----------------------|--------------------------------------|-----------------------|
| 1645846    | 5,158                 | 4-pt, 1:5                            | SARS-CoV-2-S PP entry |
| 1645845    | 5,158                 | 4-pt, 1:5                            | Cytotoxicity          |
| 1645844    | 382                   | 11-pt, 1:3                           | SARS-CoV-2-S PP entry |
| 1645847    | 382                   | 11-pt, 1:3                           | VSV-G PP entry        |