**Supplemental Information**

# Cannabinoids Block Cellular Entry of SARS-CoV-2 and the Emerging Variants

Richard B. van Breemen,[†,*] Ruth N. Muchiri,[†] Timothy A. Bates,[‡] Jules B. Weinstein,[‡] Hans C. Leier,[‡] Scotland Farley,[‡] Fikadu G. Tafesse[‡]

[†] Linus Pauling Institute, Department of Pharmaceutical Sciences, College of Pharmacy, Oregon State University, 2900 SW Campus Way, Corvallis, OR, 97331, United States

[‡] Molecular Microbiology & Immunology, Oregon Health & Science University, 3181 SW Sam Jackson Park Rd, Portland, OR 97239, United States

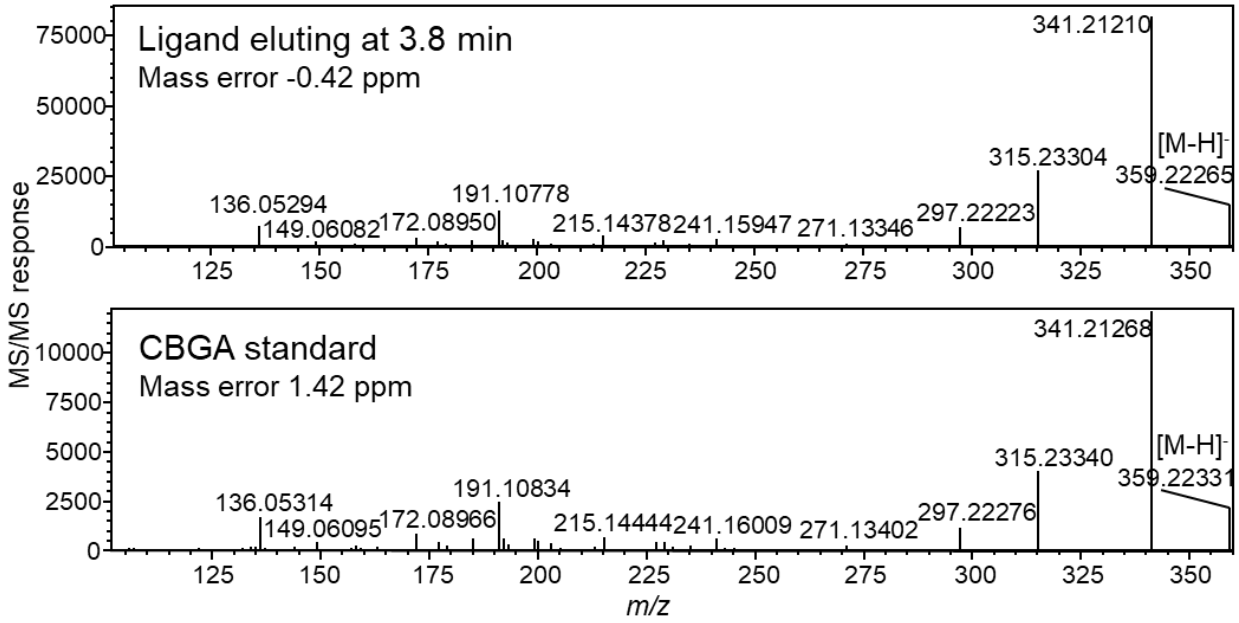


**Figure 1.** High-resolution negative ion electrospray product ion tandem mass spectra of the SARS-CoV-2 S1 protein ligand eluting at 3.8 min during MagMASS and a CBGA standard with identical mass and UHPLC retention time.

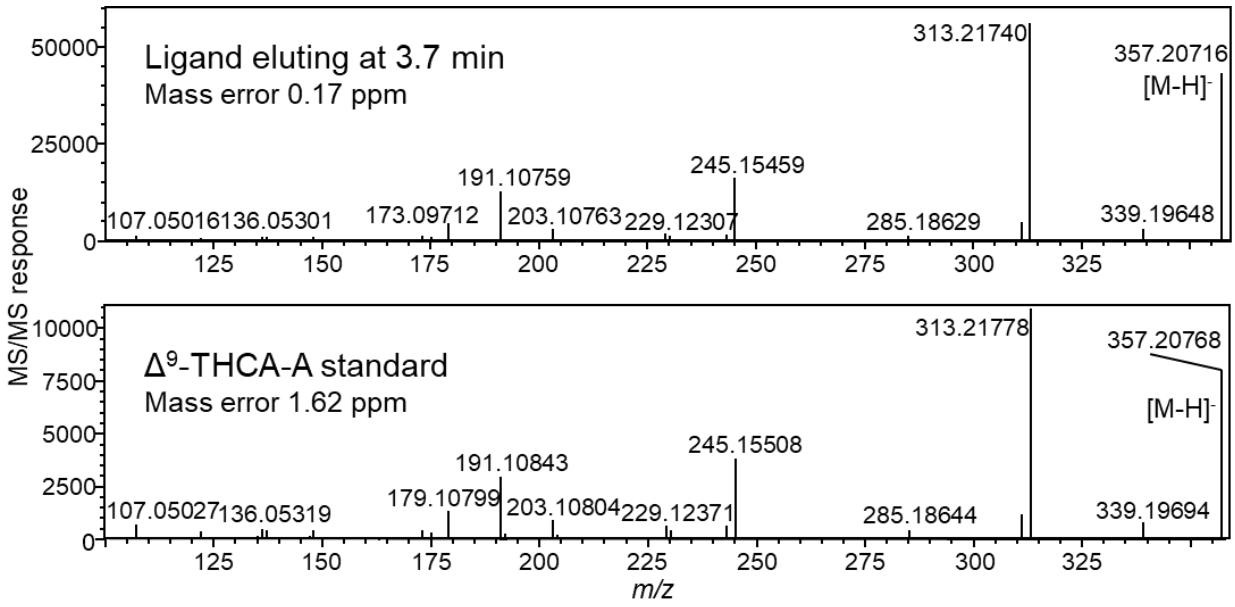


**Figure 2.** High-resolution negative ion electrospray product ion tandem mass spectra of the SARS-CoV-2 S1 protein ligand eluting at 8.2 min during MagMASS and a $\Delta^9$-THCA-A standard with identical mass and UHPLC retention time.

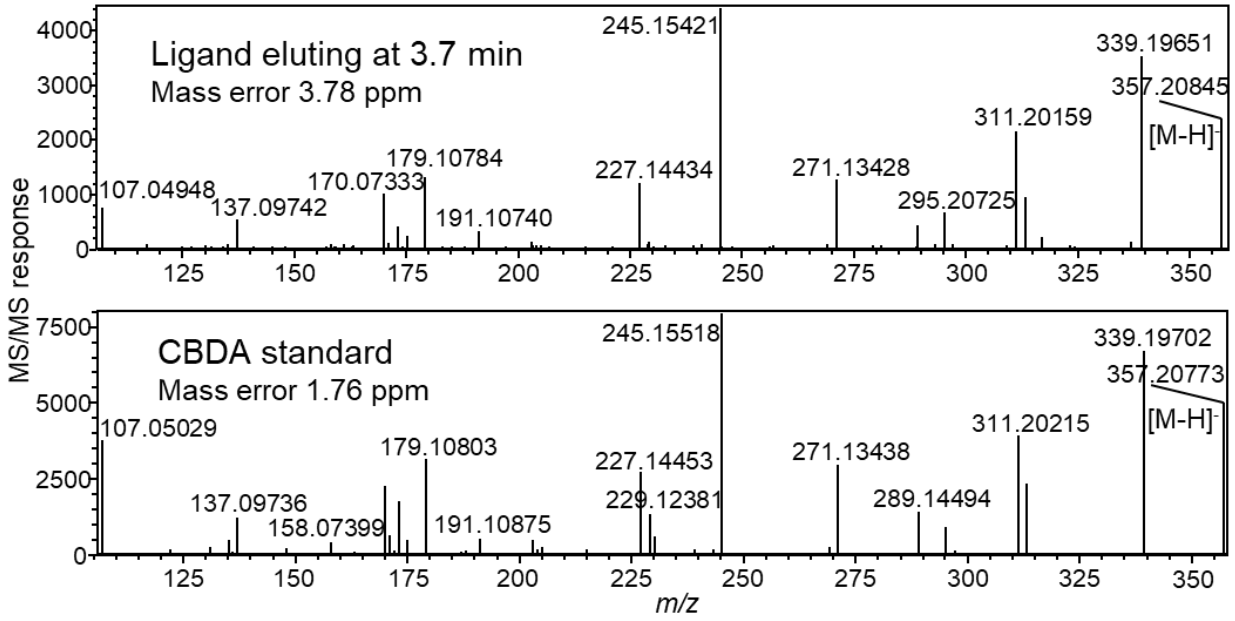


**Figure 3.** High-resolution negative ion electrospray product ion tandem mass spectra of the SARS-CoV-2 S1 protein ligand eluting at 3.7 min during MagMASS and a CBDA standard with identical mass and UHPLC retention time.

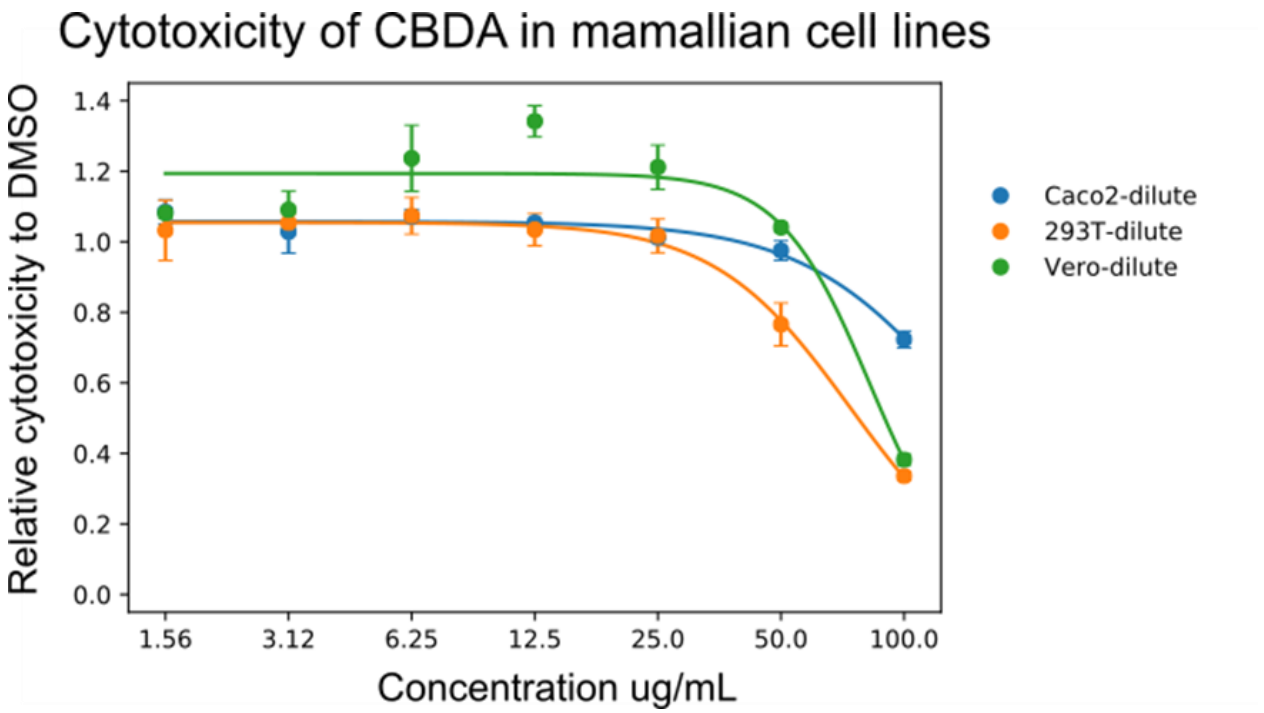


**Figure 4.** Cytotoxicity of CBDA in mammalian cell lines at concentrations used for neutralization. Cytotoxicity of CBDA was analyzed at concentrations used for neutralization to disentangle inhibition of viral entry and loss of cell fitness. Fluorescent resazurin assay was used to estimate cell viability for each cell line in presence of CBDA dilutions. Fluorescent signal was normalized to DMSO-only control for each cell line. Data are presented from two independent experiments.