

Supporting Information

SARS-CoV-2 peptide bioconjugates designed for antibody diagnostics

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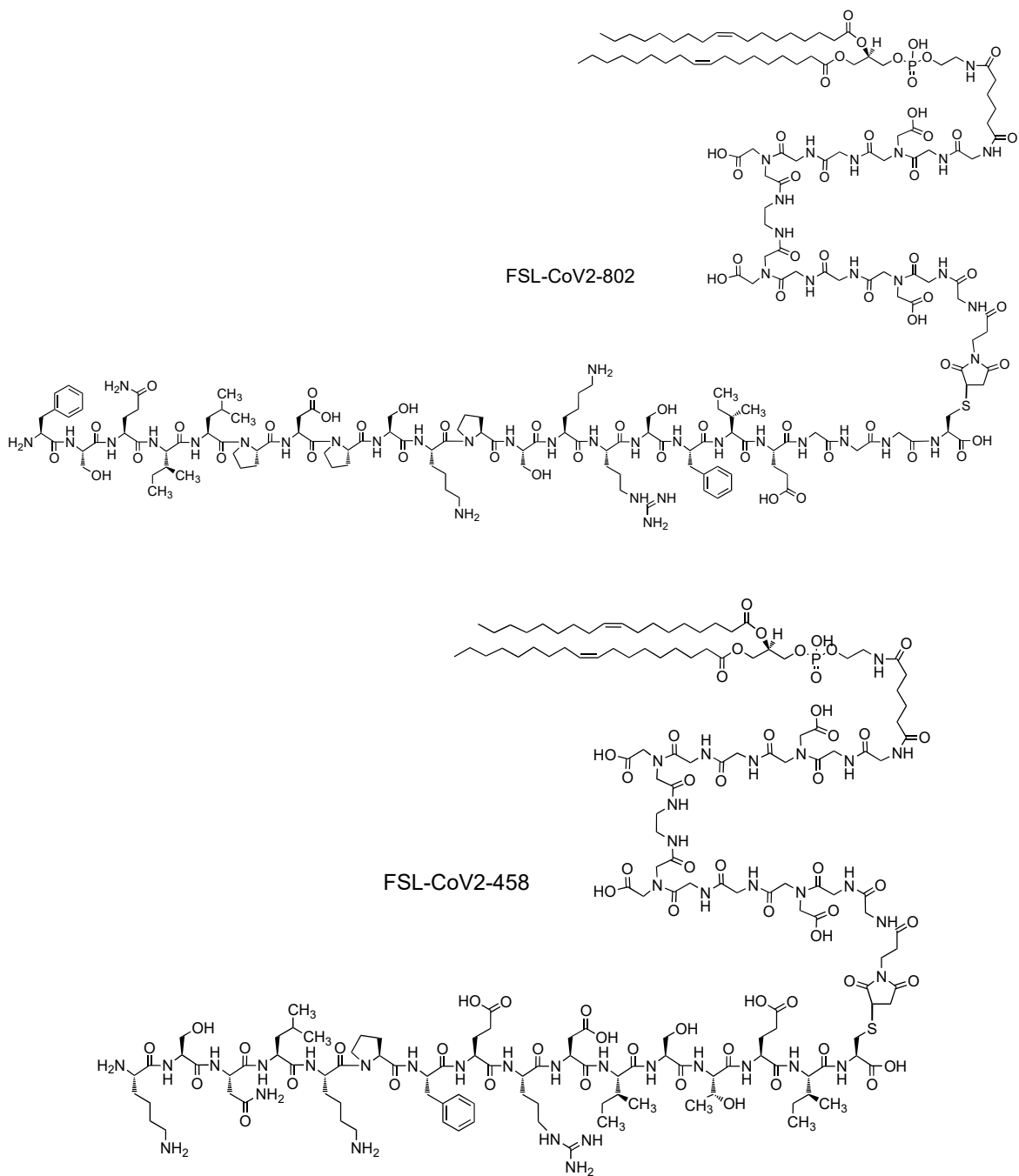
[‡]Branch of the Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry of the Russian Academy of Sciences Pushchino, Moscow Region 142290, Russian Federation

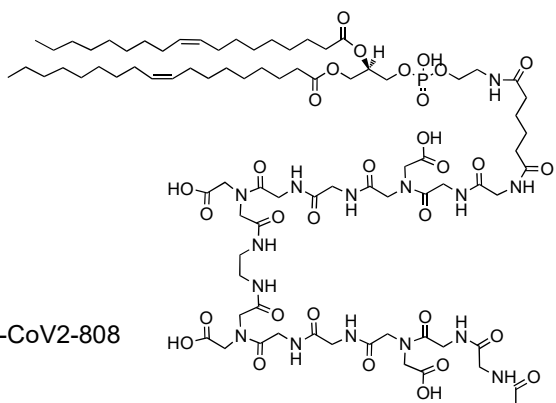
[§]National Medical Research Center for Obstetrics, Gynecology and Perinatology named after V.I. Kulakov of the Ministry of Health, of Russian Federation, Moscow 117997, Russian Federation

[#]Centre for Kode Technology Innovation, School of Engineering, Computer and Mathematical Sciences, Faculty of Design and Creative Technologies, Auckland University of Technology, Auckland 1010, New Zealand

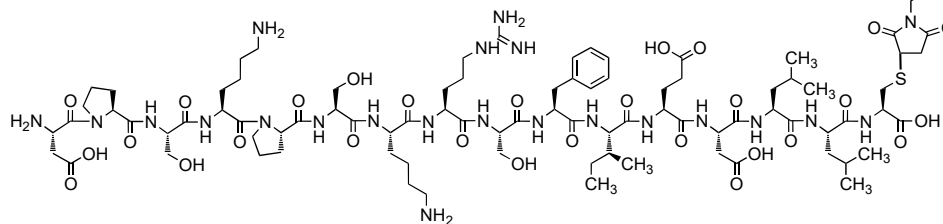
*corresponding author: professorbovin@yandex.ru, tel +7(495)3307138, fax +7(495)3350812, Russian Federation, Moscow 117997, Ul. Miklukho-Maklaya, 16/10

S1. Structure of 11 lipophilic conjugates (FSLs) of SARS-CoV-2 peptides

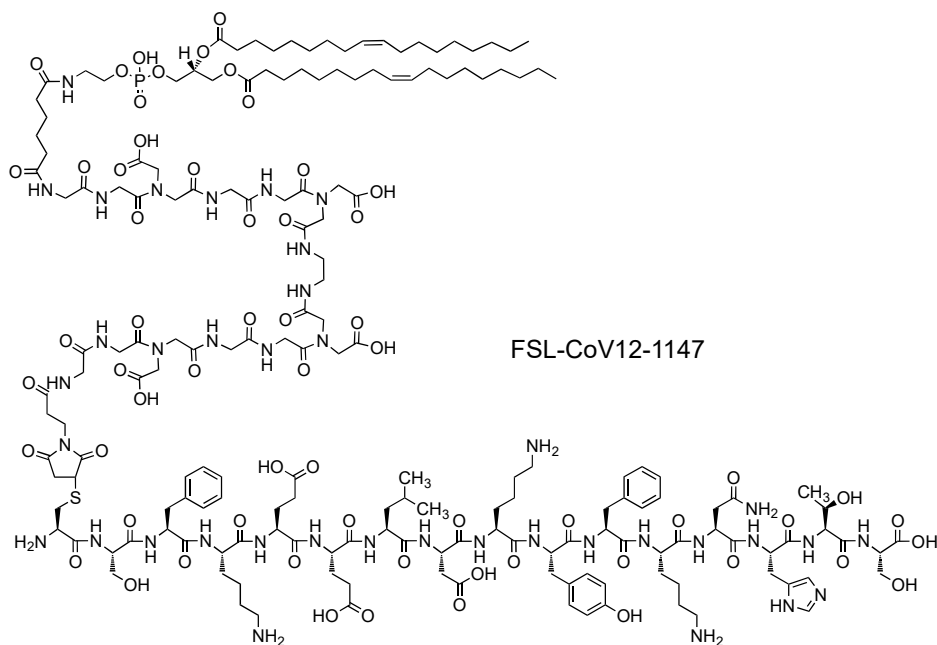


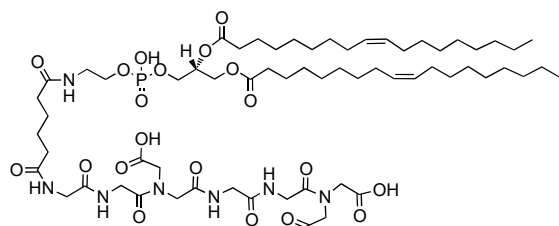


FSL-CoV2-808

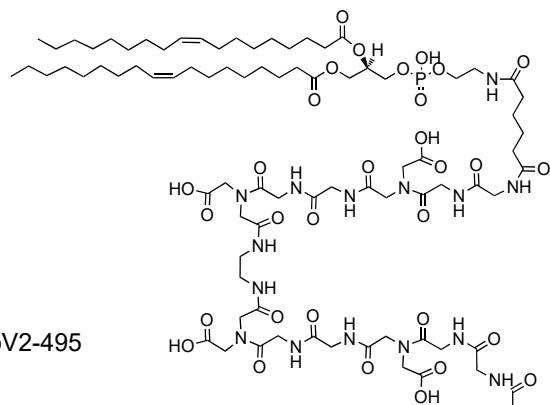
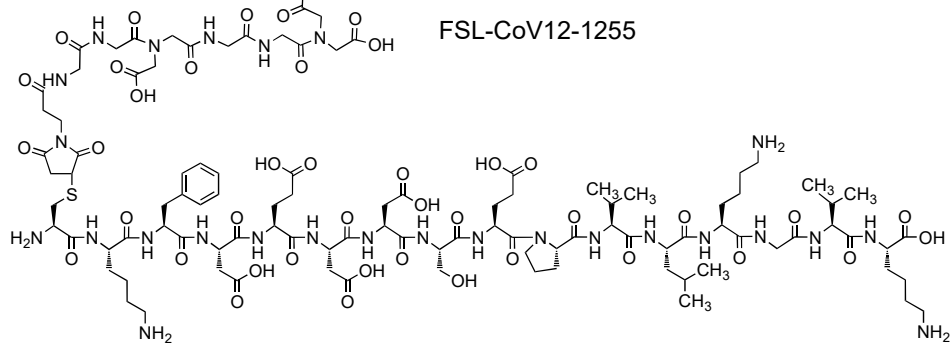


FSL-CoV12-1147

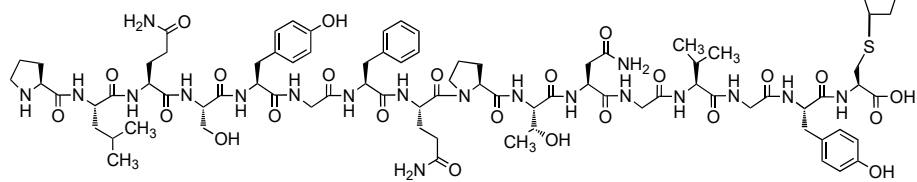


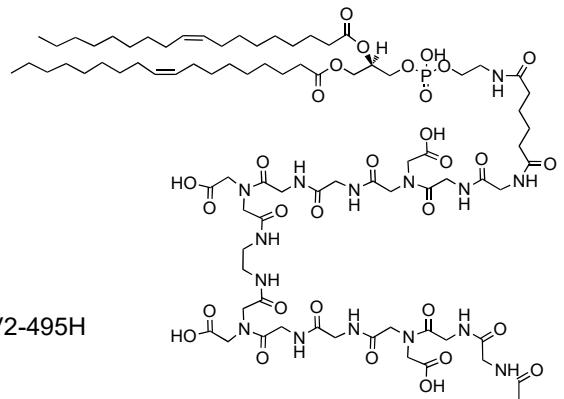


FSL-CoV12-1255

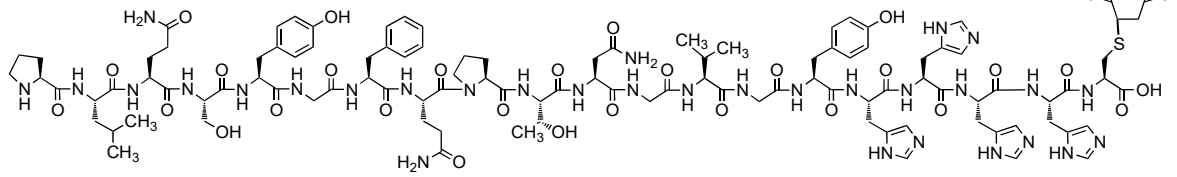


FSL-CoV2-495

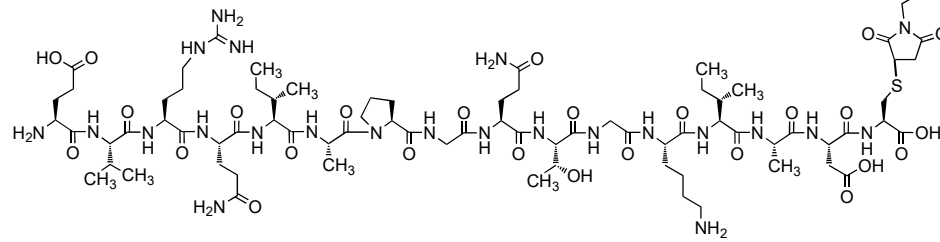


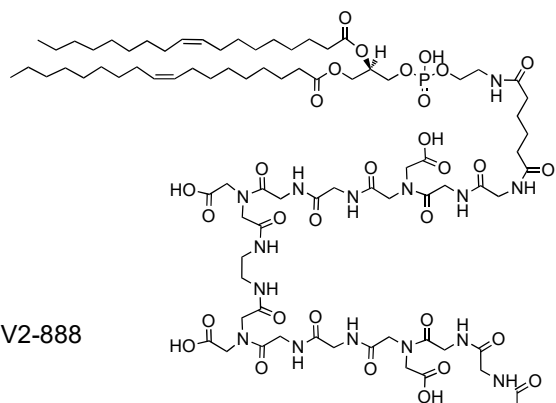


FSL-CoV2-495H

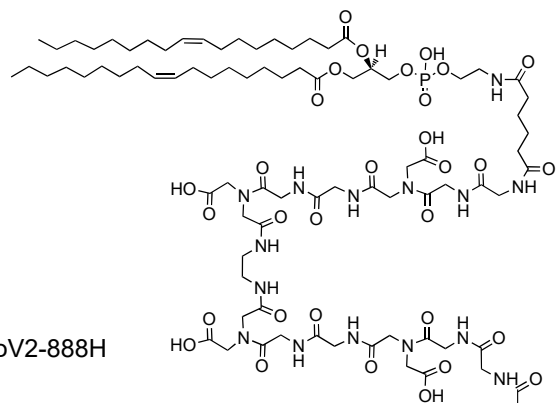
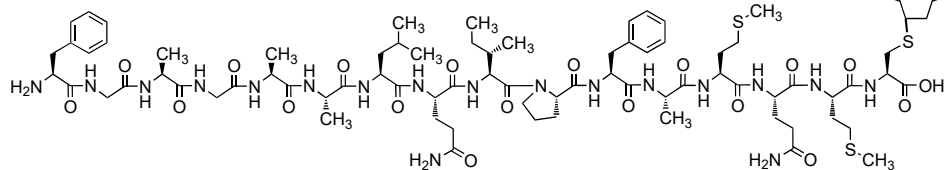


FSL-CoV2-406

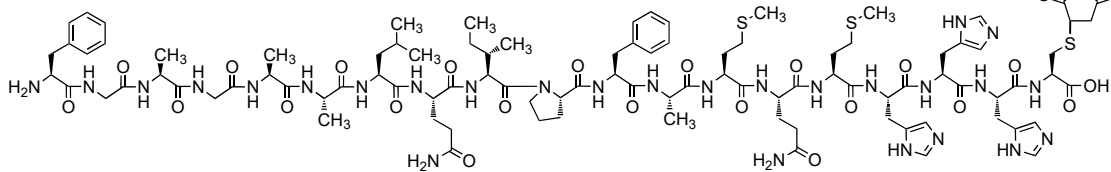


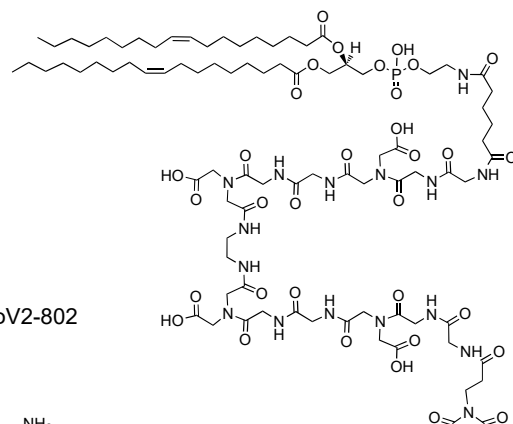


FSL-CoV2-888

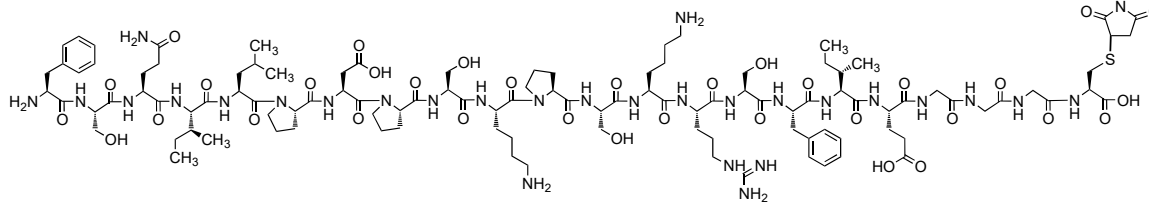


FSL-CoV2-888H



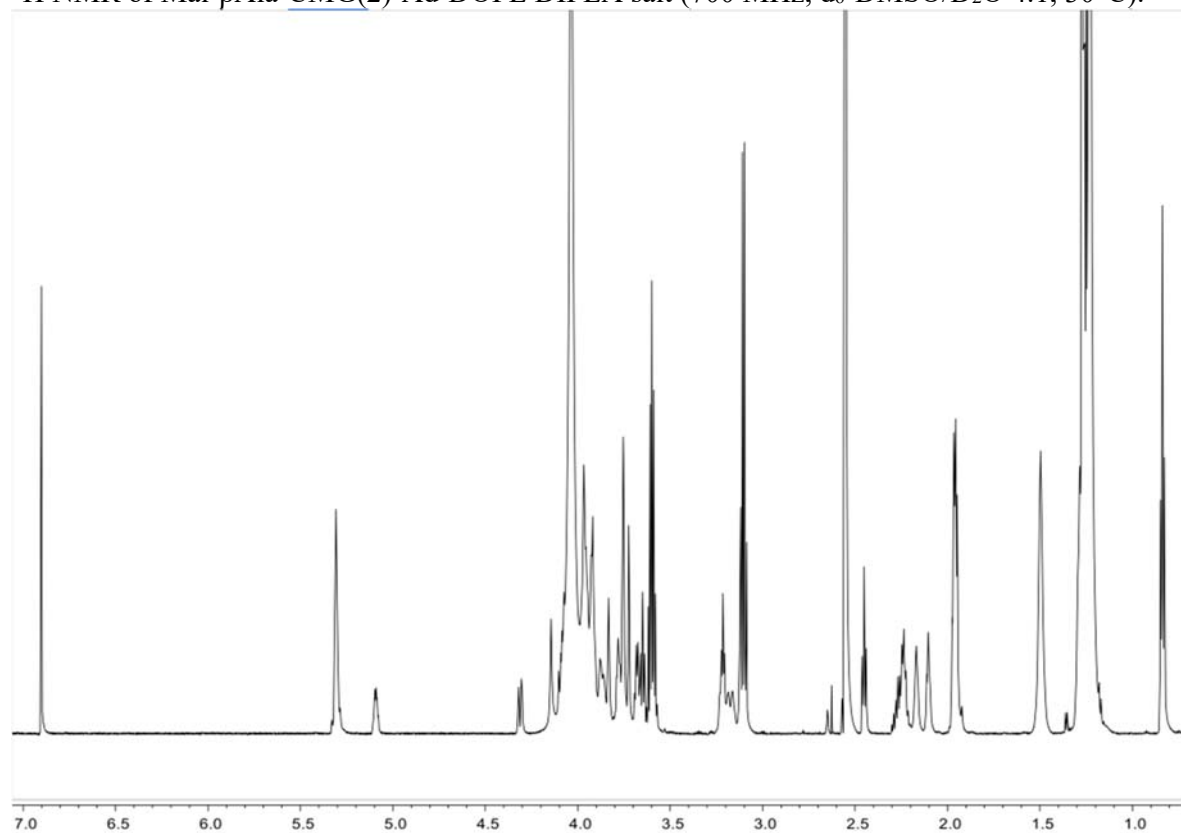


FSL-CoV2-802

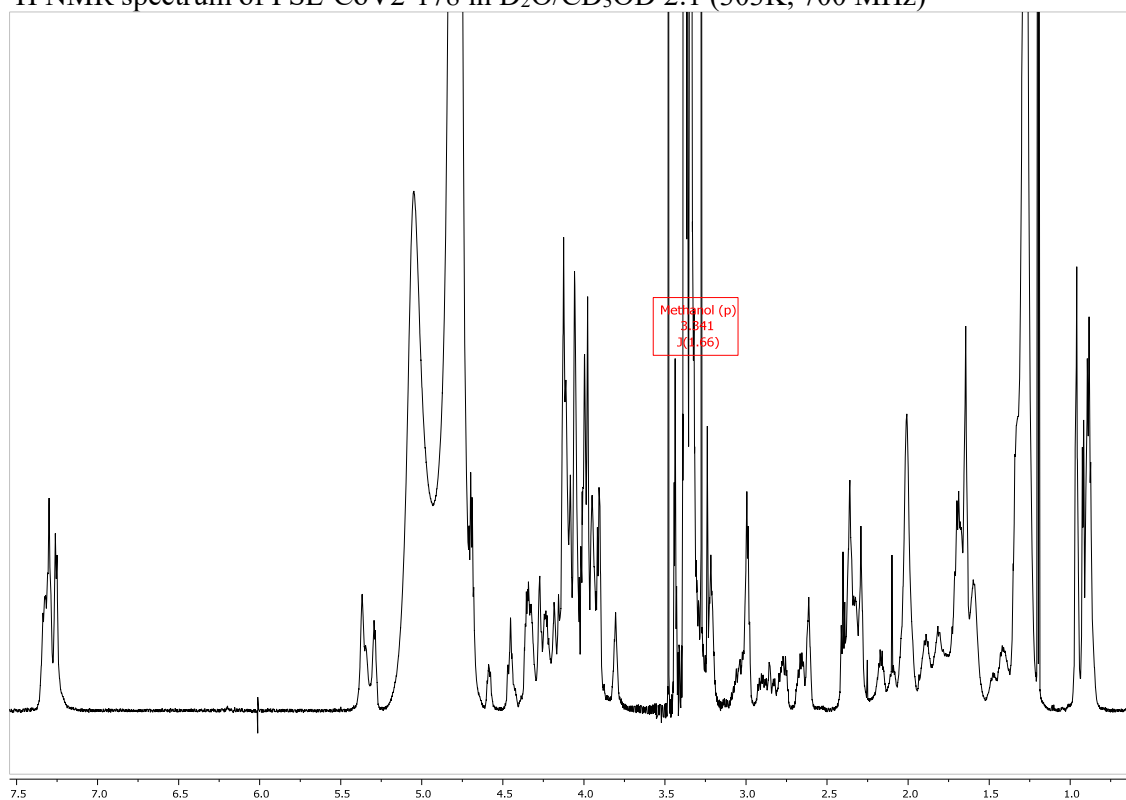


S2. Raw data of mass spectra and NMR for the peptide product and other important intermediate products

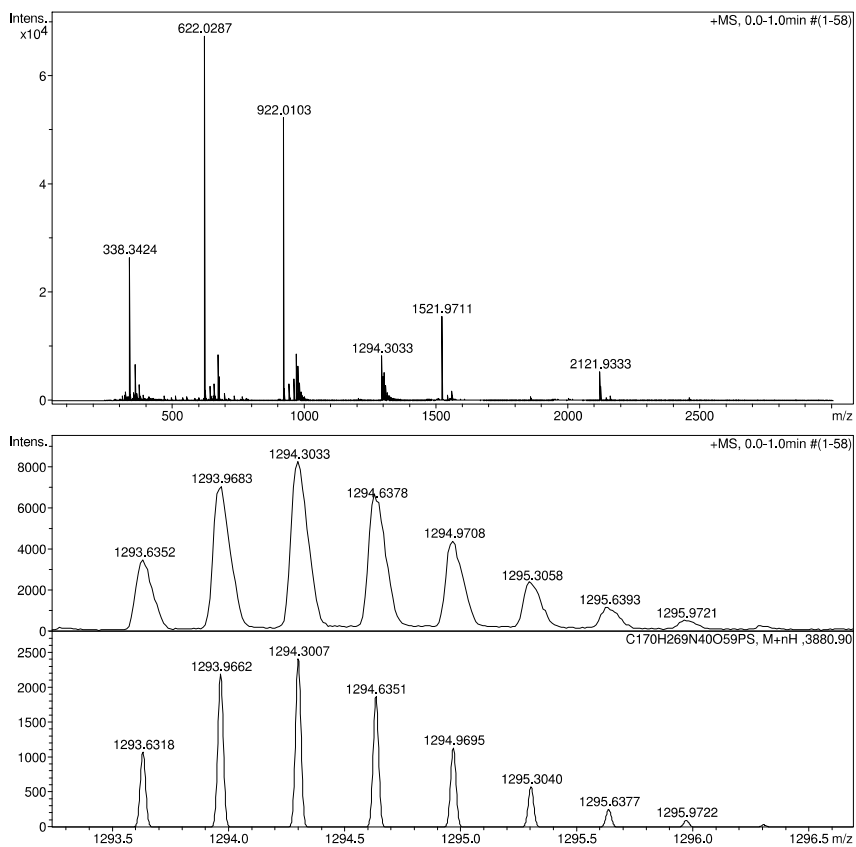
^1H NMR of Mal- β Ala-CMG(2)-Ad-DOPE DIPEA salt (700 MHz, d_6 -DMSO/ D_2O 4:1, 30°C).



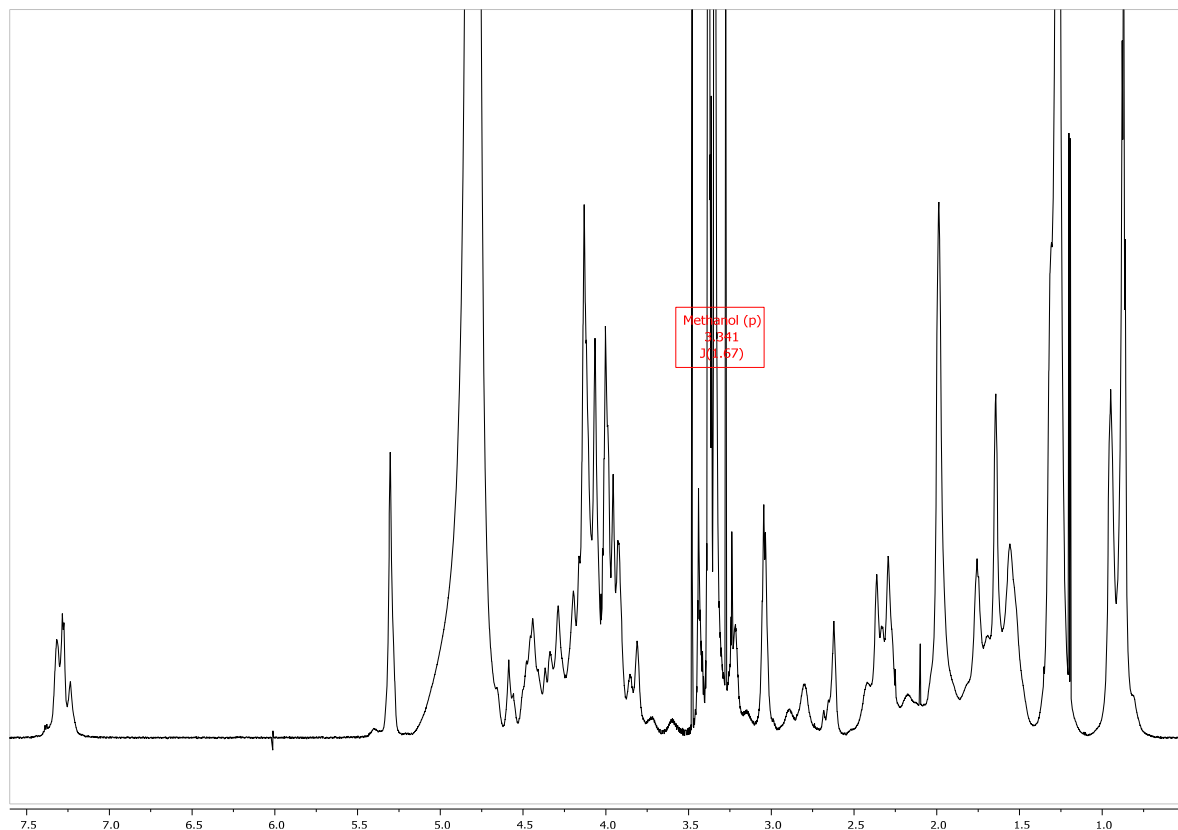
^1H NMR spectrum of FSL-CoV2-178 in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 2:1 (303K, 700 MHz)



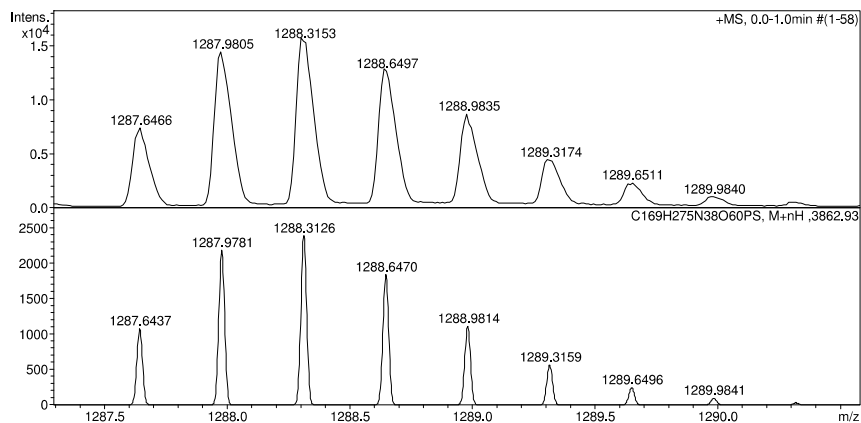
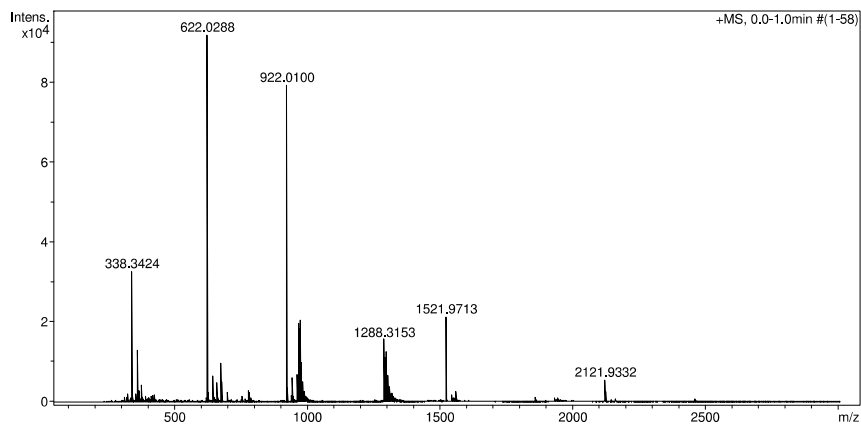
HRESIMS spectrum of FSL-CoV2-178



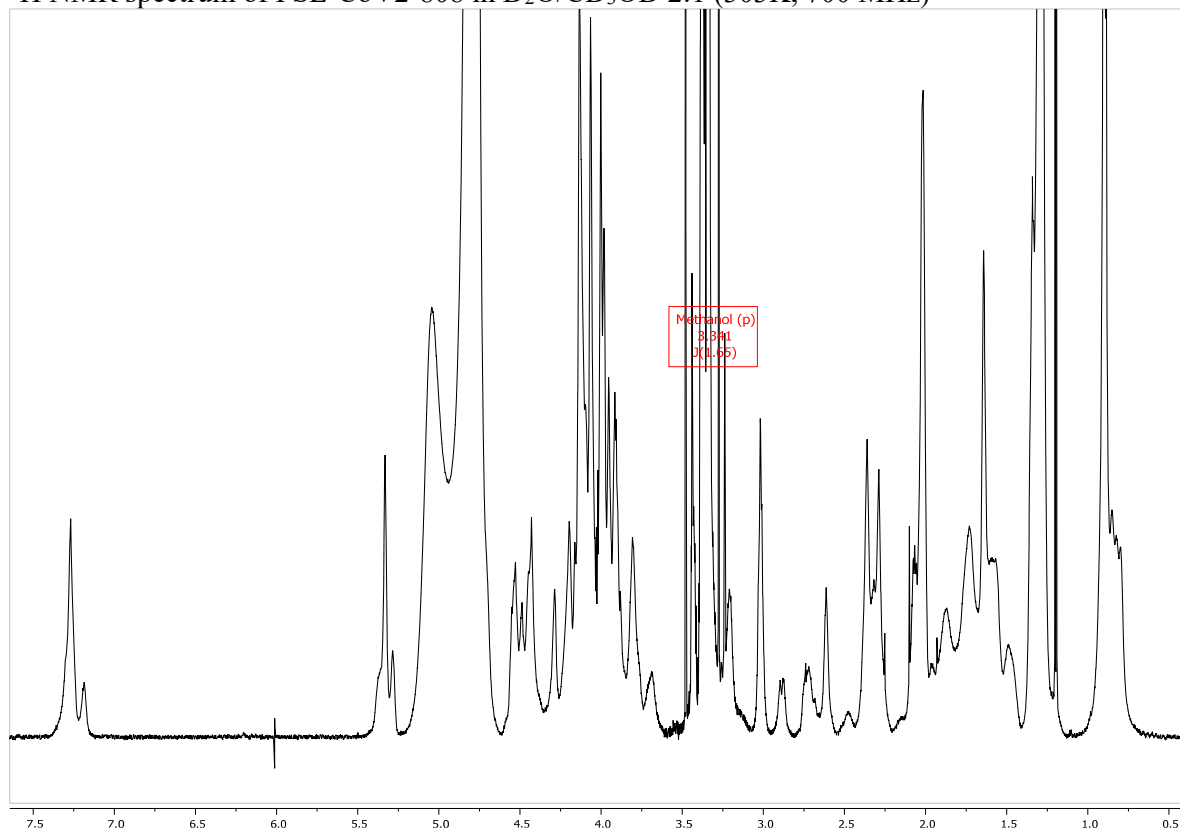
^1H NMR spectrum of FSL-CoV2-458 in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 2:1 (303K, 700 MHz)



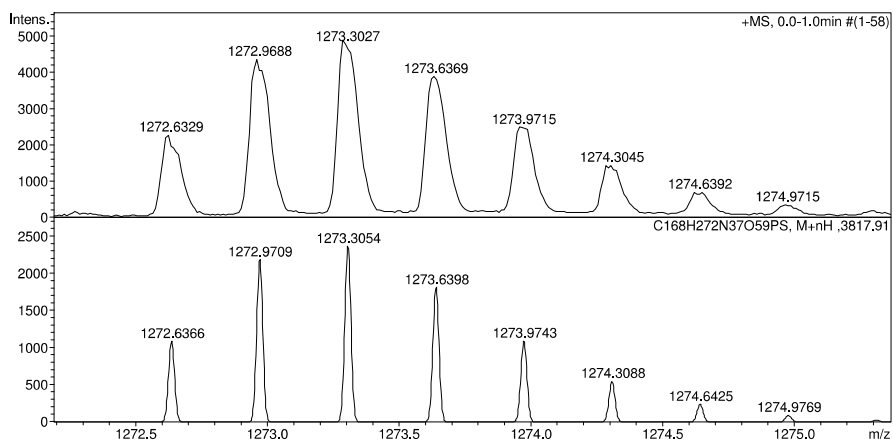
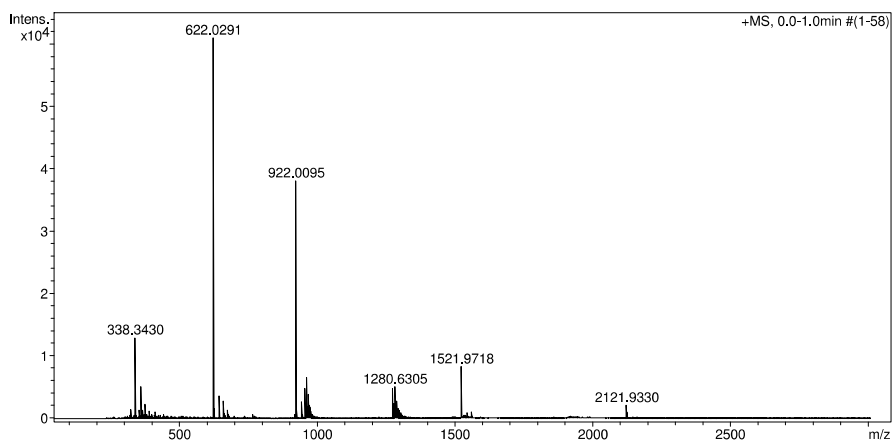
HRESIMS spectrum of FSL-CoV2-458



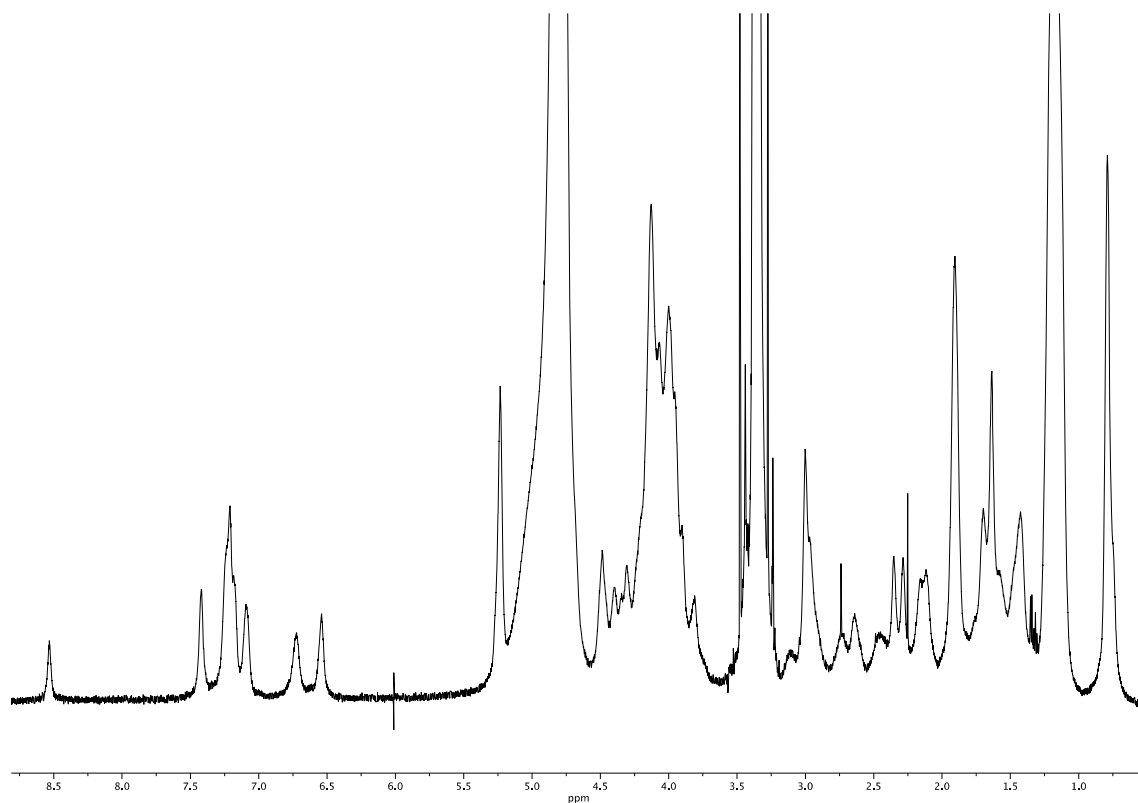
¹H NMR spectrum of FSL-CoV2-808 in D₂O/CD₃OD 2:1 (303K, 700 MHz)



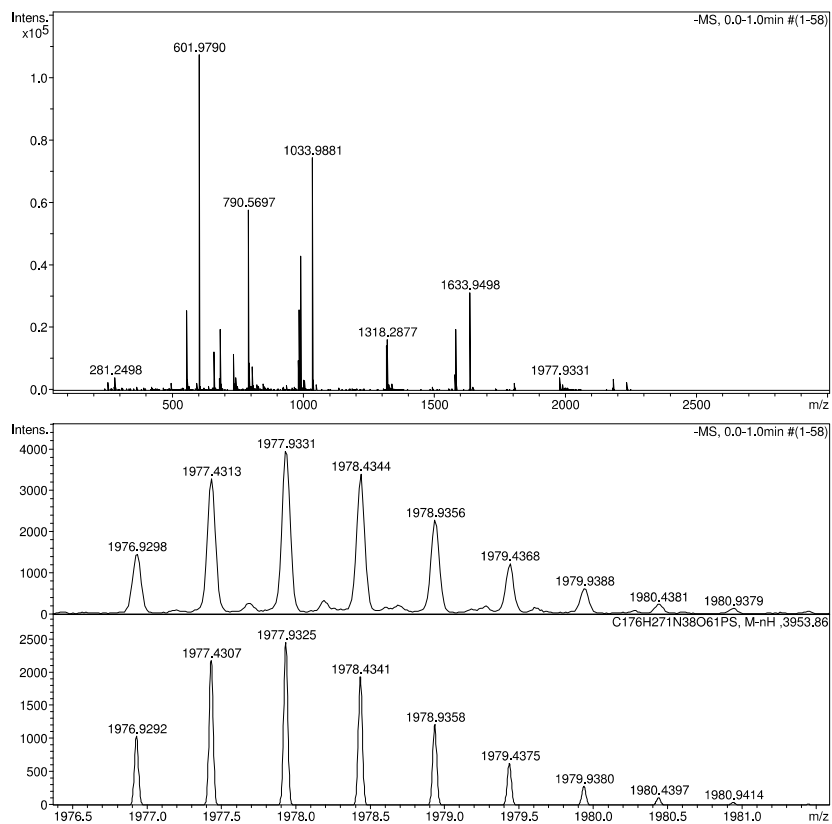
HRESIMS spectrum of FSL-CoV2-808



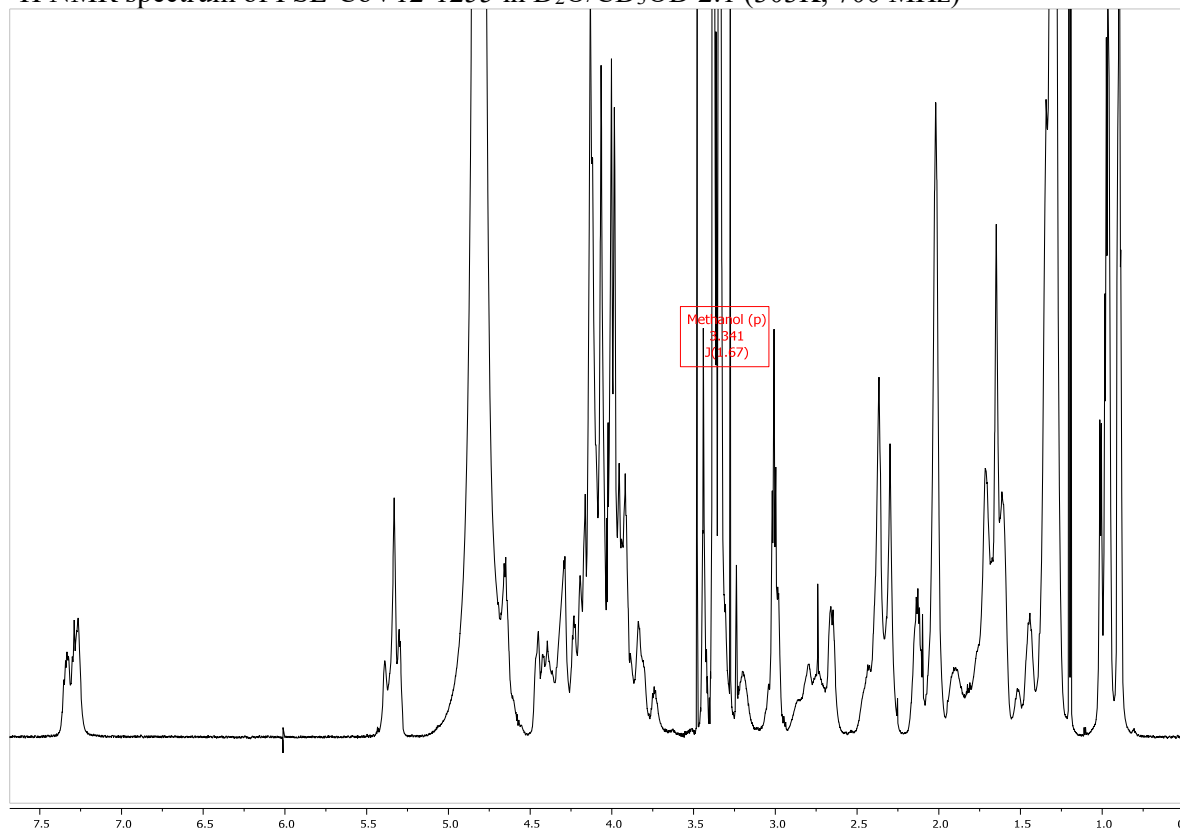
^1H NMR spectrum of FSL-CoV12-1147 in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 2:1 (303K, 700 MHz)



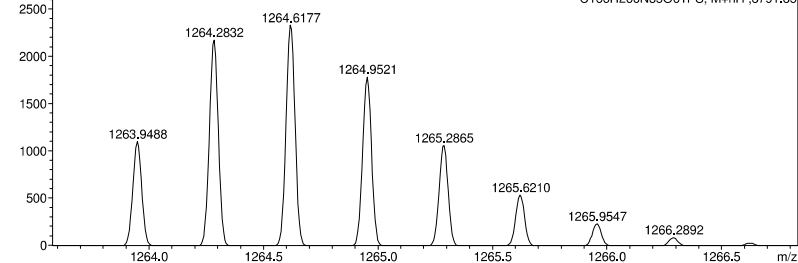
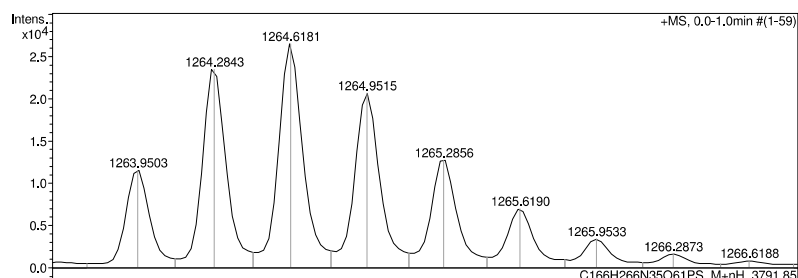
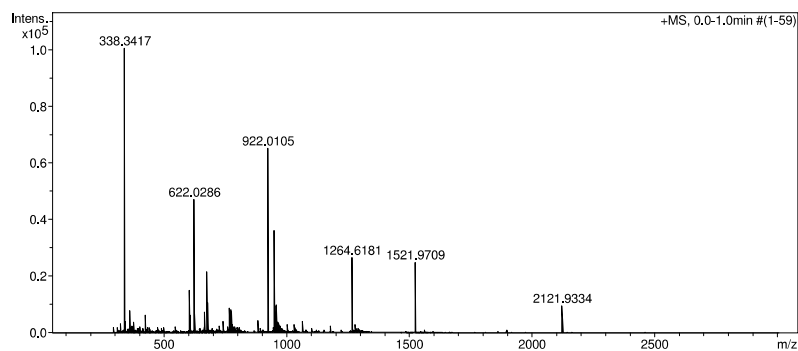
HRESI|MS spectrum of FSL-CoV12-1147



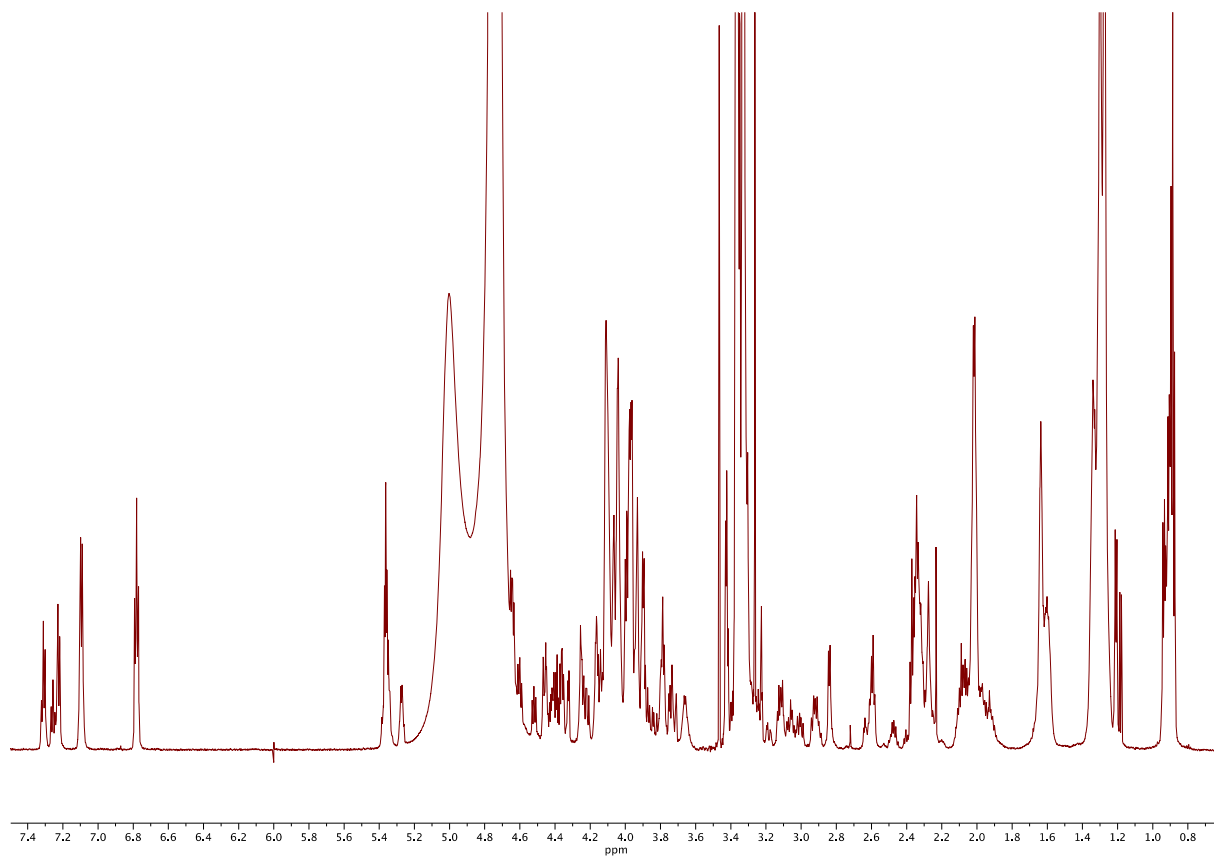
¹H NMR spectrum of FSL-CoV12-1255 in D₂O/CD₃OD 2:1 (303K, 700 MHz)



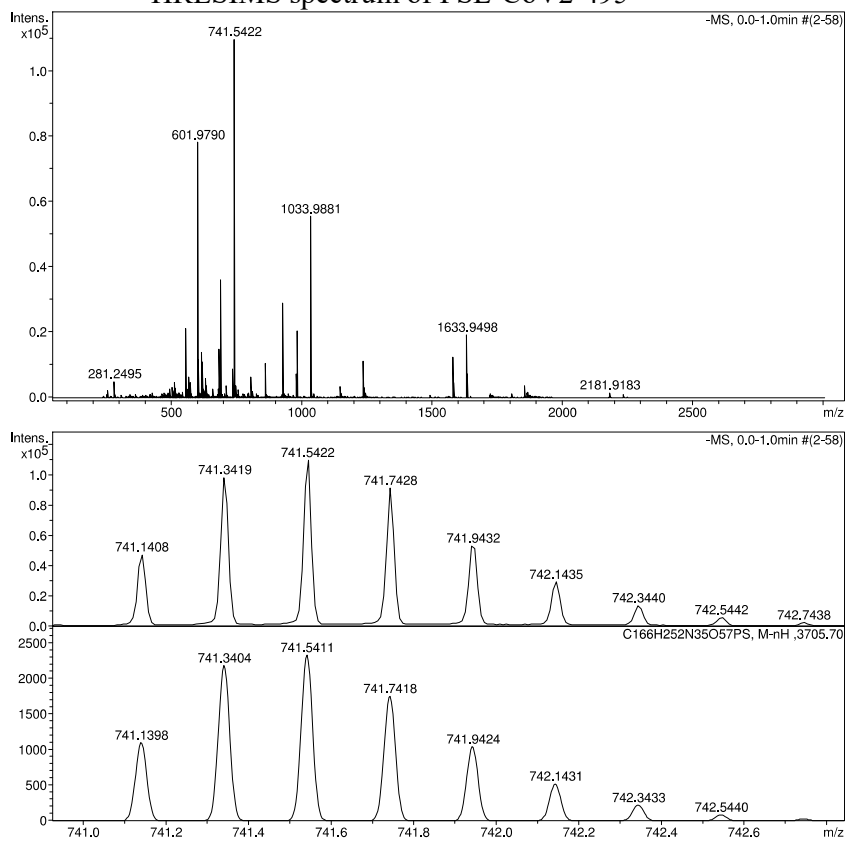
HRESIMS spectrum of FSL-CoV12-1255



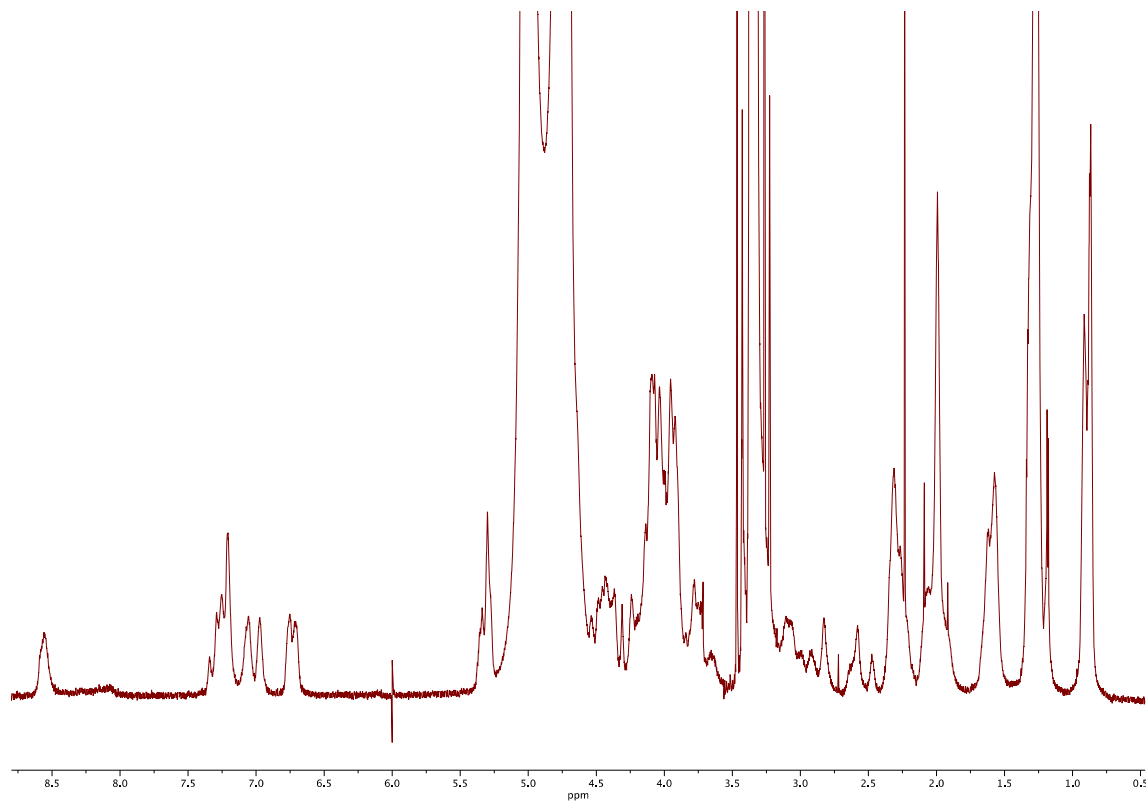
^1H NMR spectrum of FSL-CoV2-495 in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 1:1 (303K, 700 MHz)



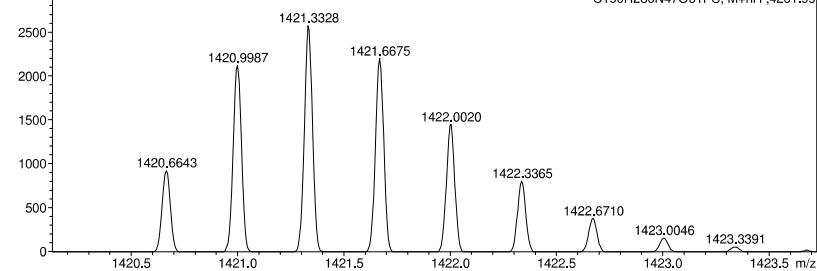
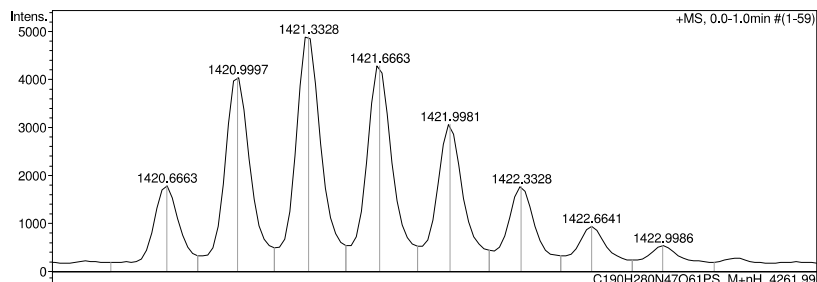
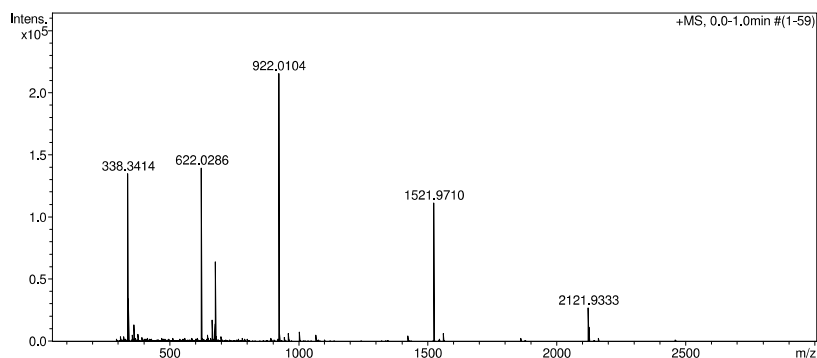
HRESIMS spectrum of FSL-CoV2-495



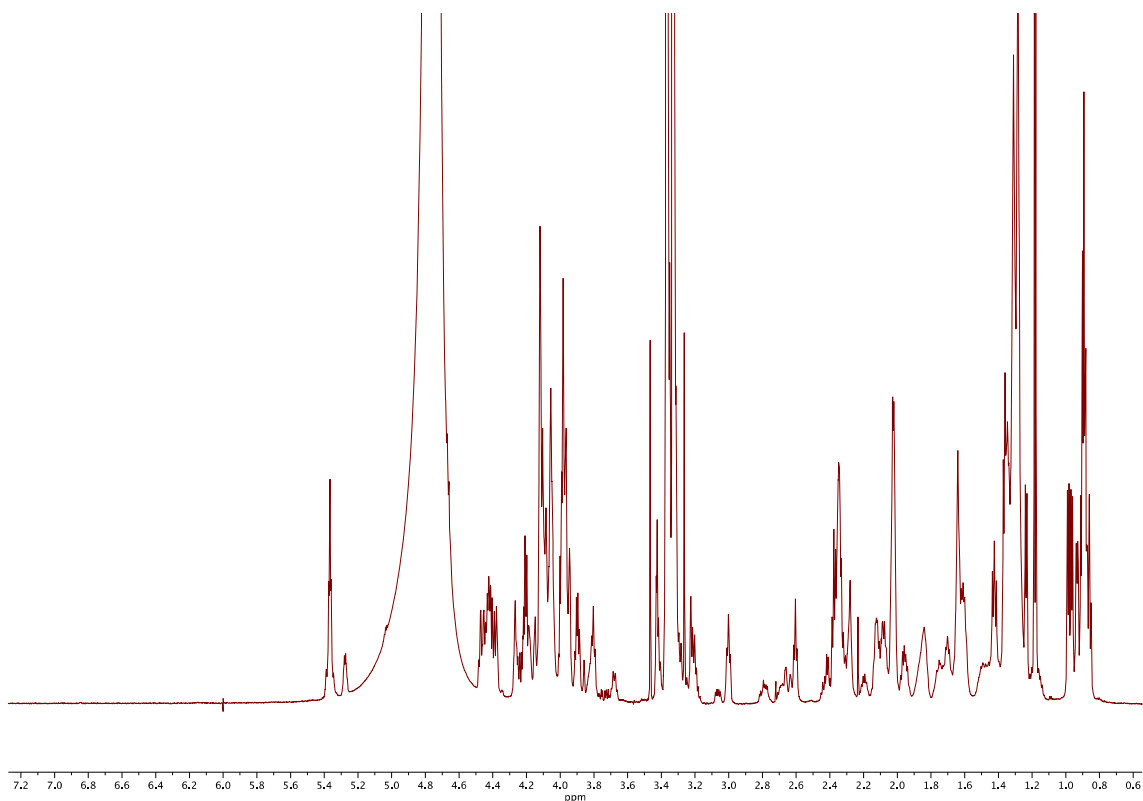
^1H NMR spectrum of FSL-CoV2-495H in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 1:1 (303K, 700 MHz)



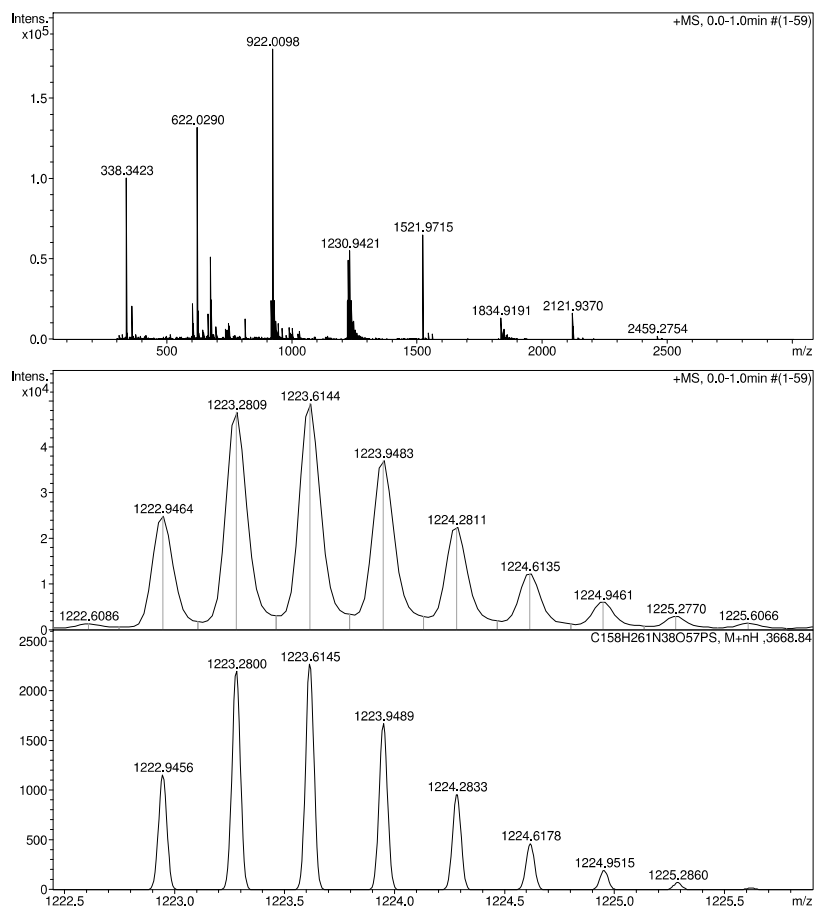
HRESIMS spectrum of FSL-CoV2-495H



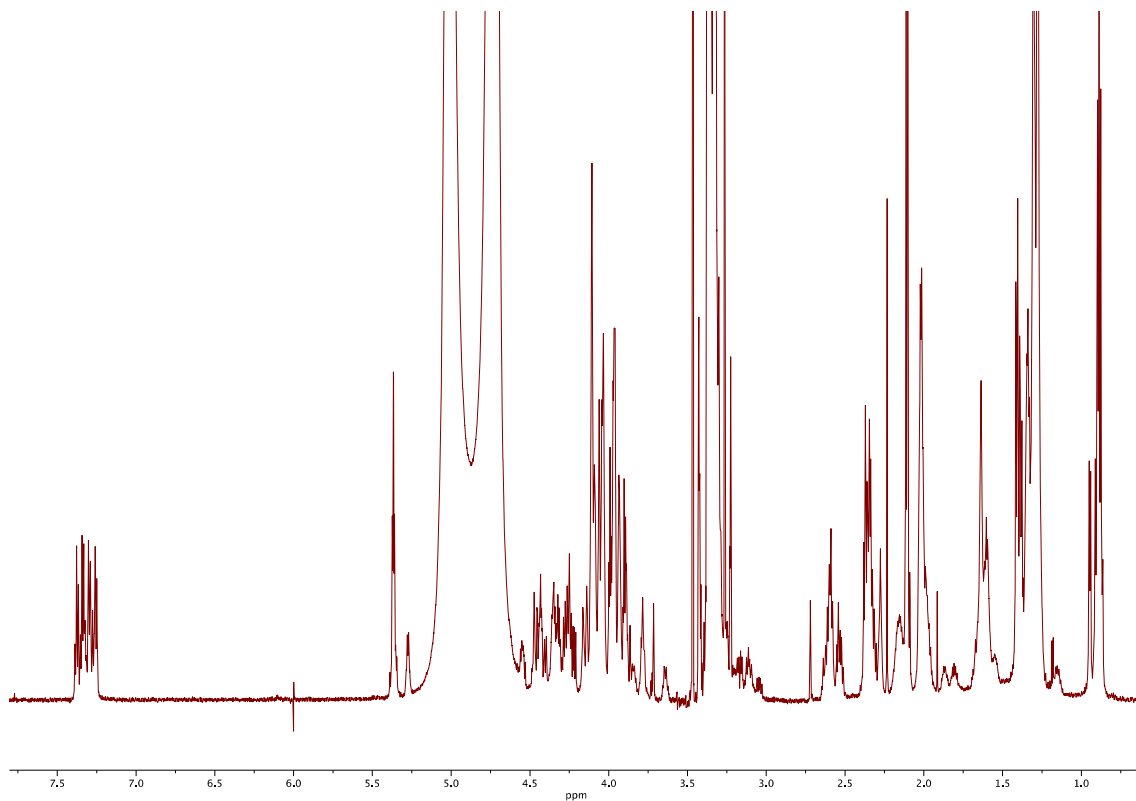
^1H NMR spectrum of FSL-CoV2-406 in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 1:1 (303K, 700 MHz)



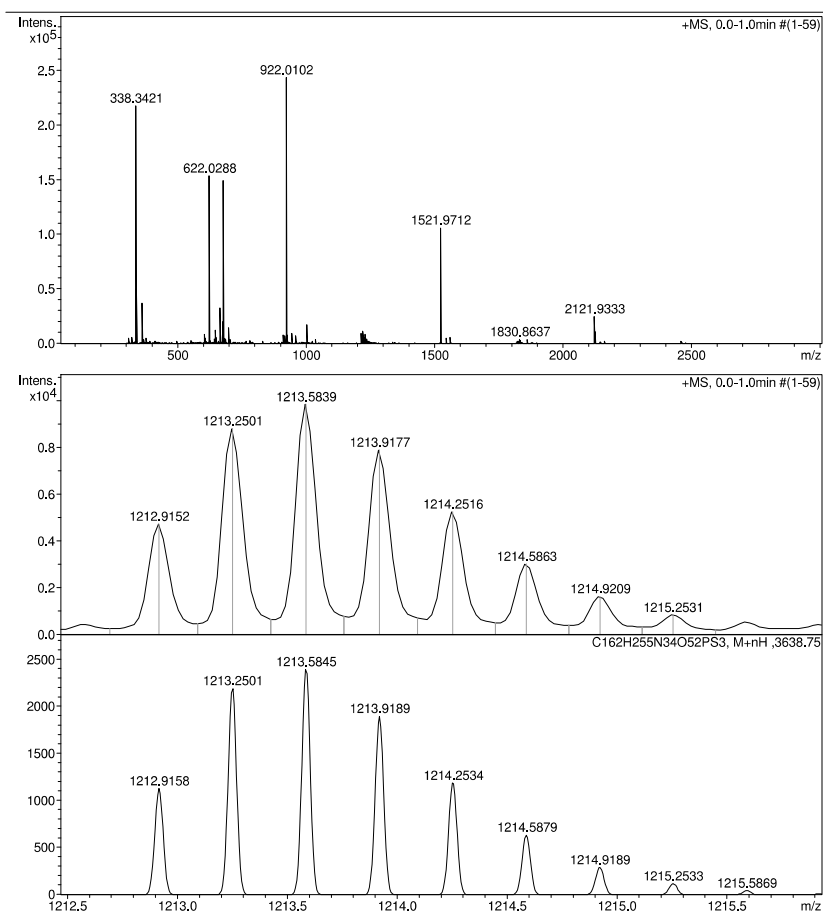
HRESIMS spectrum of FSL-CoV2-406



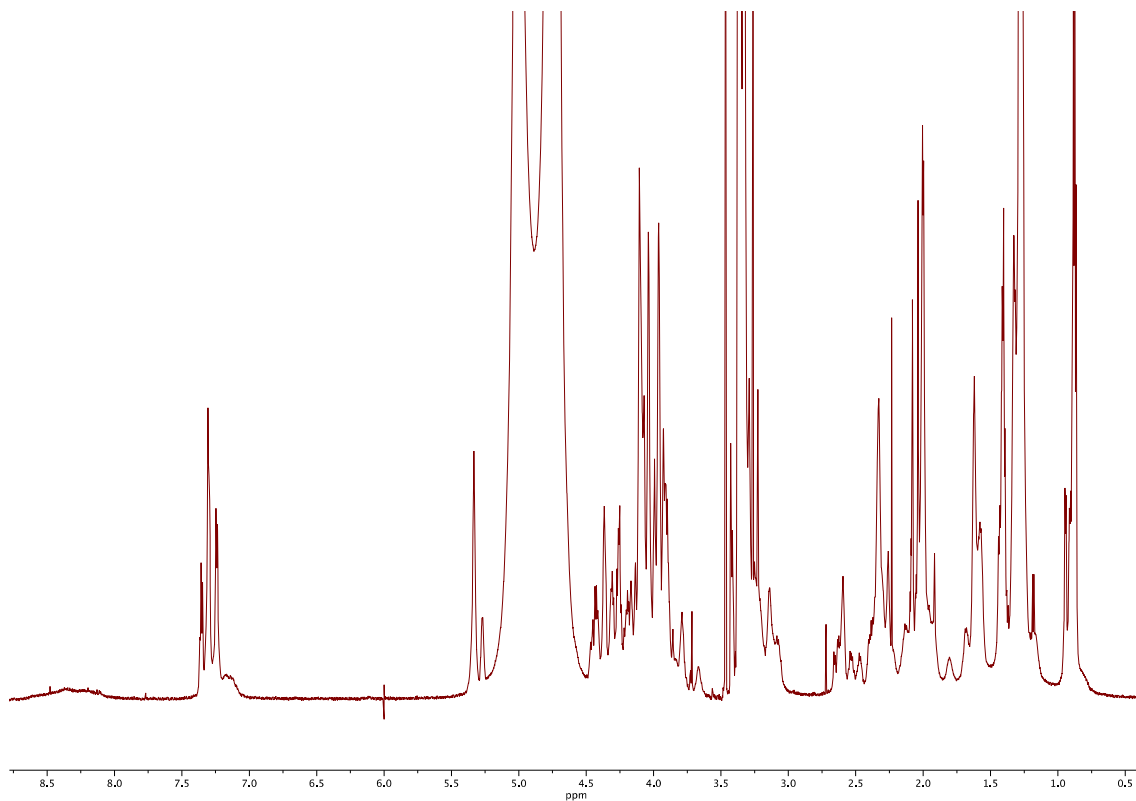
^1H NMR spectrum of FSL-CoV2-888 in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 1:1 (303K, 700 MHz)



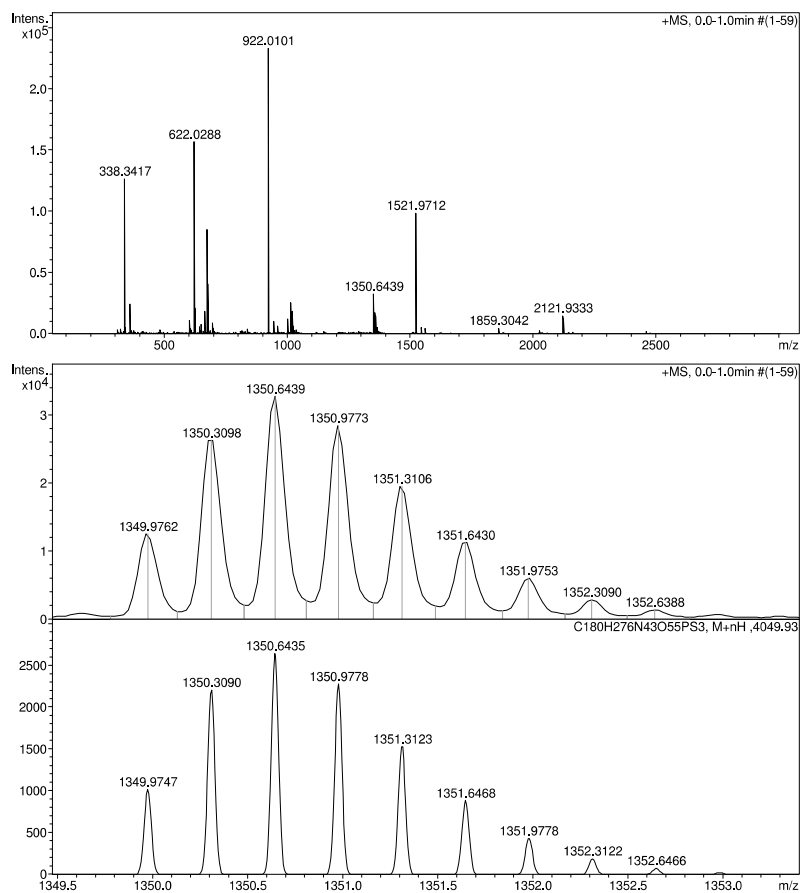
HRESIMS spectrum of FSL-CoV2-888



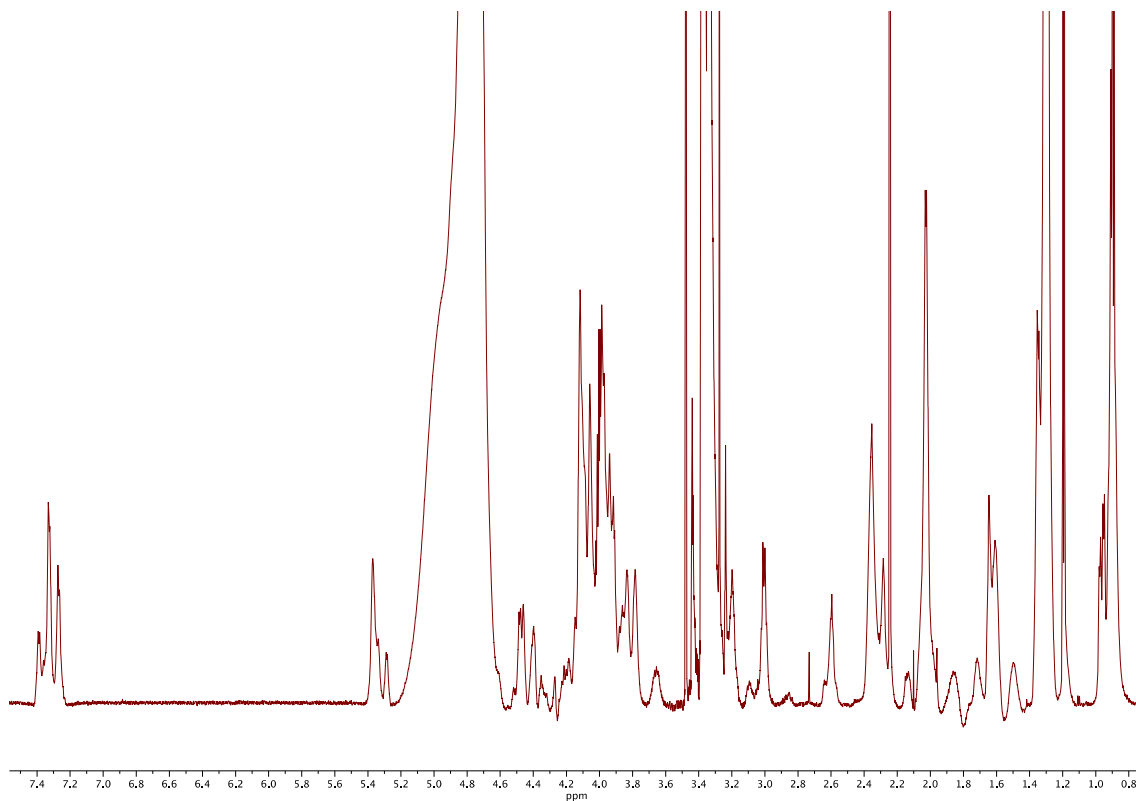
^1H NMR spectrum of FSL-CoV2-888H in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 1:1 (303K, 700 MHz)



HRESIMS spectrum of FSL-CoV2-888H



^1H NMR spectrum of FSL-CoV2-802 in $\text{D}_2\text{O}/\text{CD}_3\text{OD}$ 1:1 (303K, 700 MHz)



HRESIMS spectrum of FSL-CoV2-802

