

Supplementary Information

Antibody Binding Captures High Energy State of an Antigen: The Case of Nsp1 SARS-CoV-2 as Revealed by Hydrogen-Deuterium Exchange Mass Spectrometry

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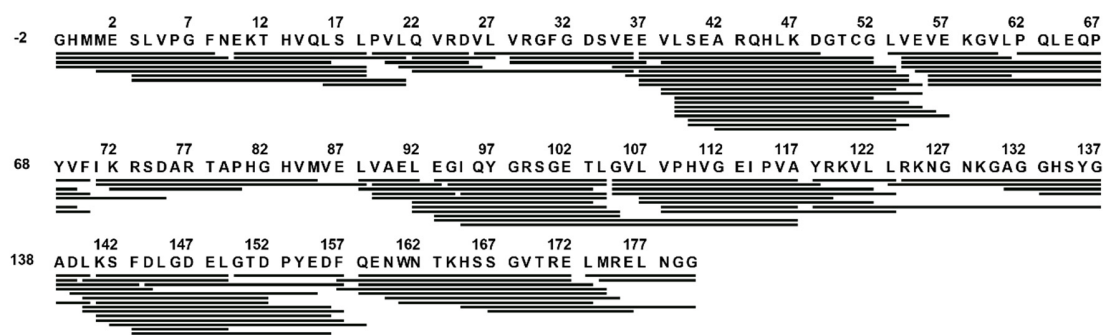


Figure S1. Coverage map of all peptides obtained for the LukF after double digestion, Fungal XIII followed by pepsin. The horizontal bar represents peptides spanning different segments

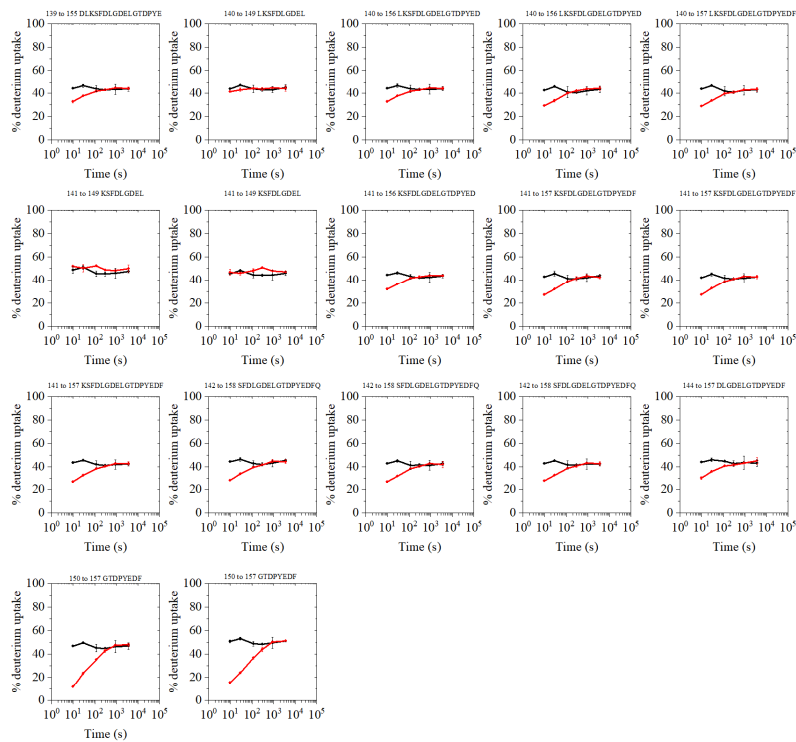


Figure S2. HDX kinetics curves of peptides exhibiting HDX differences from the putative binding site towards the C-terminus of full length Nsp1: unbound (black) and antibody-bound (15497).

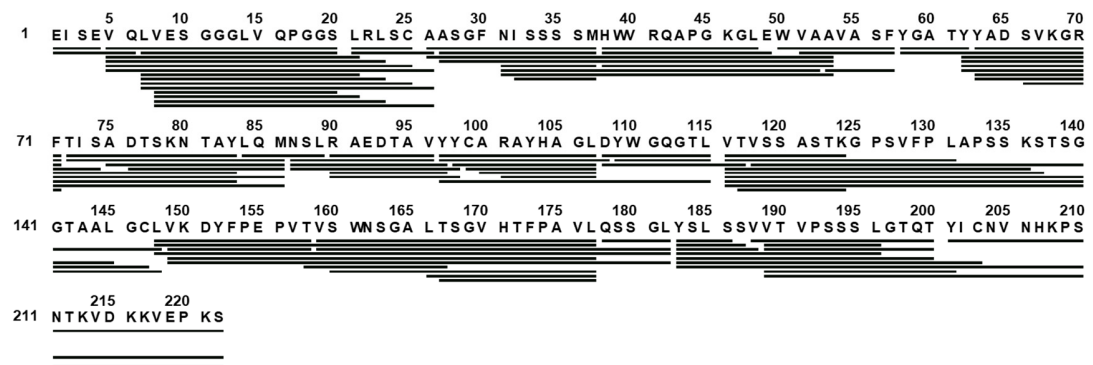
1 5 10 15 20 25 30 35 40 45 50 55 60 65 70
 EI SEV QLVES GGGLV QPGGS LRLSC AASGF NFSSS SI HWV RQAPG KGLEW VASI S SSYGY TYYAD SVKGR
 71 75 80 85 90 95 100 105 110 115 120 125 130 135 140
 FTI SA DTSKN TAYLQ MNSLR AEDTA VYYCA RWAAM DYWGQ GTLVT VSSAS TKGPS VFPLA PSSKS TSGGT
 141 145 150 155 160 165 170 175 180 185 190 195 200 205 210
 AALGC LVKDY FPEPV TVSWN SGALT SGVHT FPAVL QSSGL YSLSS VVTVP SSSLG TQTYI CNVNH KPSNT
 211 215 220
 KVDKK VEPKS

A

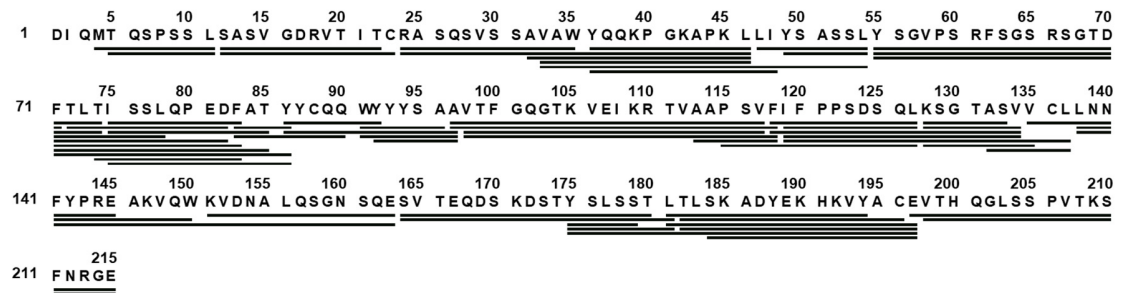
1 5 10 15 20 25 30 35 40 45 50 55 60 65 70
 DI QMT QSPSS LSASV GDRV T I TCRA SQSVS SAVAW YQQKP GKAPK LLI YS ASSLY SGVPS RFSGS RSGTD
 71 75 80 85 90 95 100 105 110 115 120 125 130 135 140
 FTLTI SSLQP EDFAT YYCQQ YYS LI TFGQG TKVEI KRTVA APSVF I FPPS DSQLK SGTAS VVCLL NNFYP
 141 145 150 155 160 165 170 175 180 185 190 195 200 205 210
 REAKV QWKVD NALQS GNSQE SVTEQ DSKDS TYSL S STLT L SKADY EKHKV YACEV THQGL SSPVT KSFNR
 211 215 220
 GE

B

Figure S3. Coverage map of all peptides obtained for the antibody 15497 A) Heavy Chain B) Light chain after double digestion, Fungal XIII followed by pepsin. The horizontal bar represents peptides spanning different segments of the sequence.



A



B

Figure S4. Coverage map of all peptides obtained for the antibody 15498 A) Heavy Chain B) Light chain after double digestion, Fungal XIII followed by pepsin. The horizontal bar represents peptides spanning different segments of the sequence.

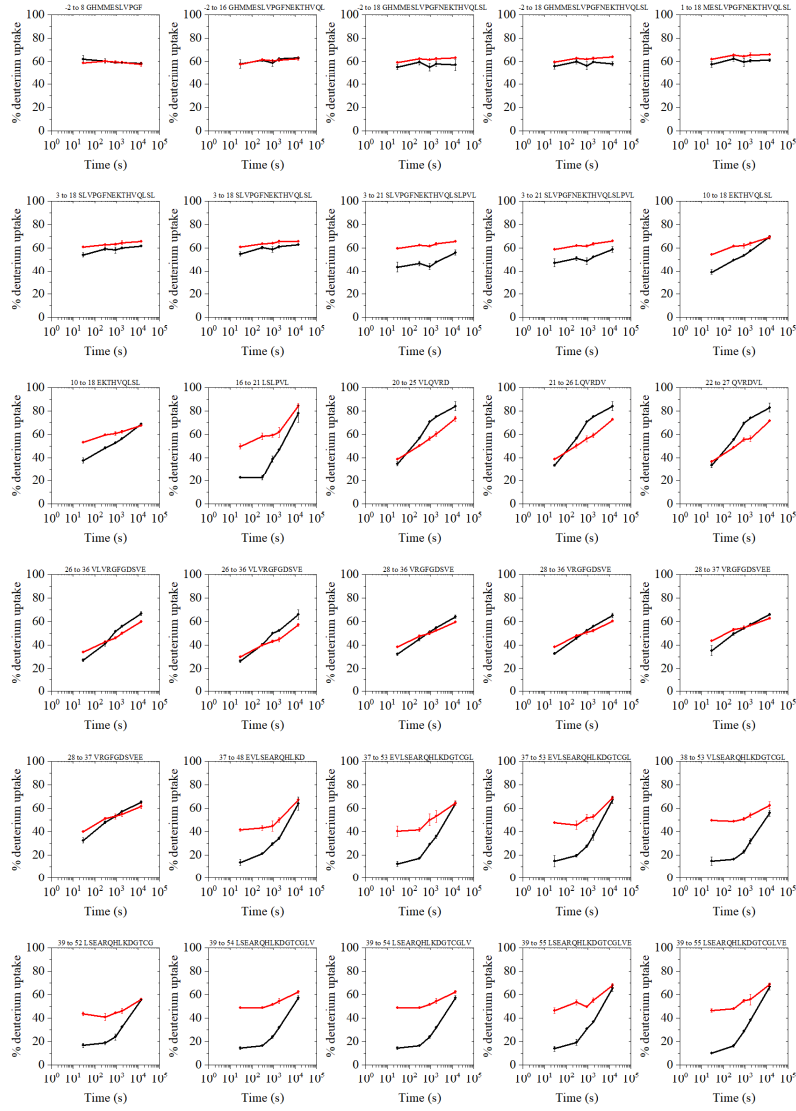


Figure S5. HDX kinetics curves of peptides from N terminal domain of full length Nsp1, unbound (black), bound to antibody (15498).

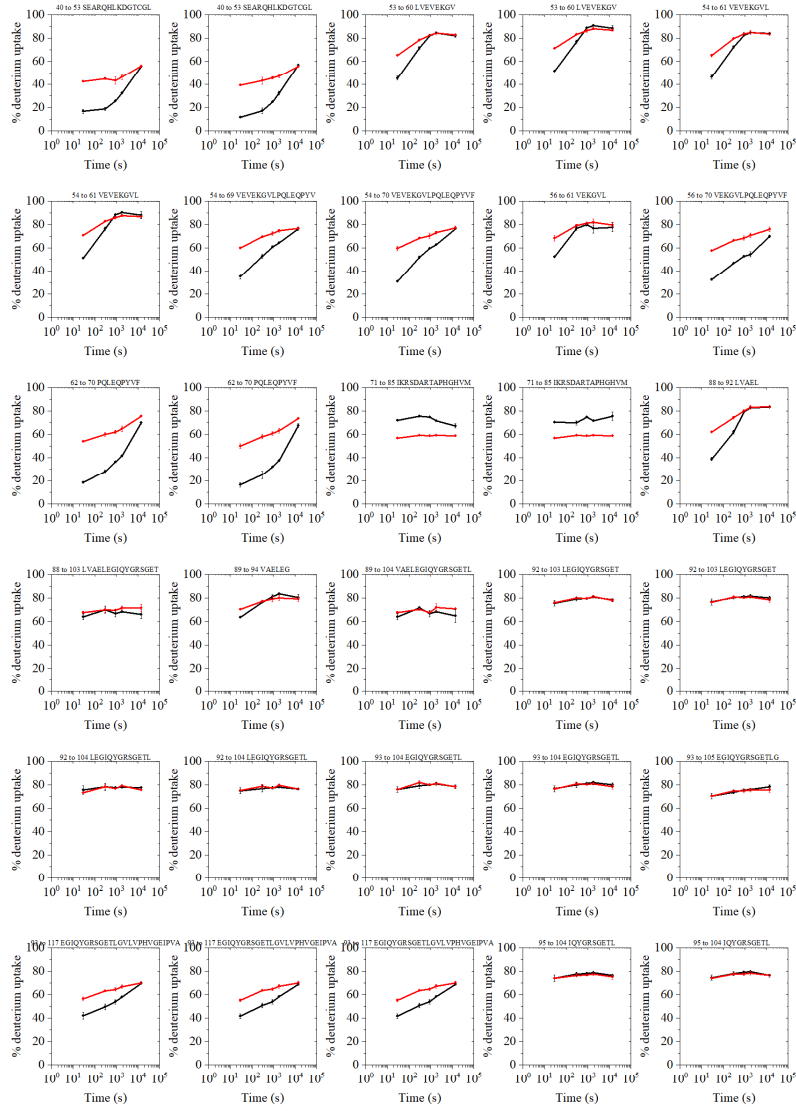


Figure S5. HDX kinetics curves of peptides from N terminal domain of full length Nsp1, unbound (black), bound to antibody (15498).

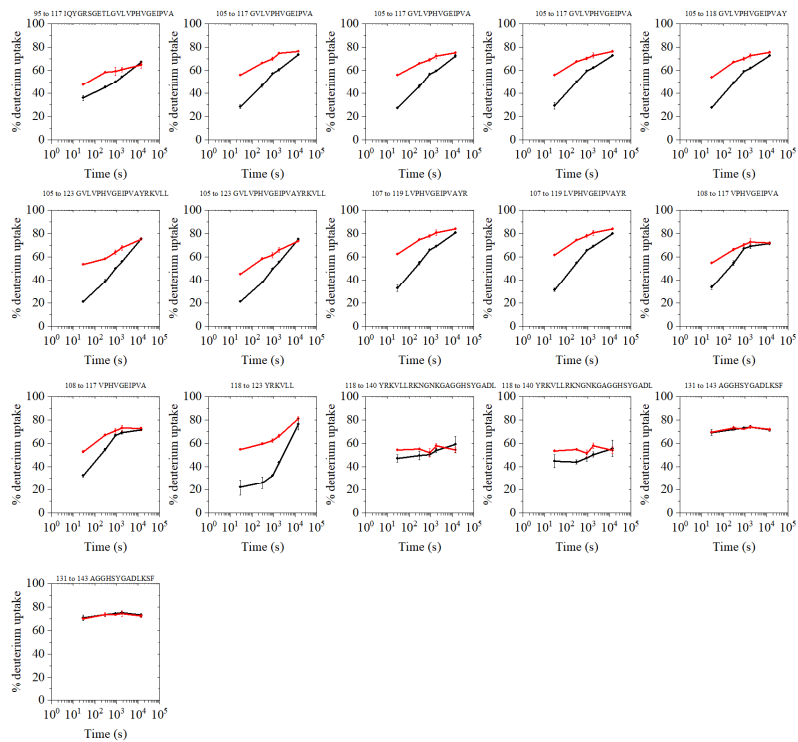


Figure S5. HDX kinetics curves of peptides from N terminal domain of full length Nsp1, unbound (black), bound to antibody (15498).