

SUPPLEMENTARY INFORMATION

A novel approach for selecting potent peptide inhibitors of the SARS-CoV2-M^{pro} protease

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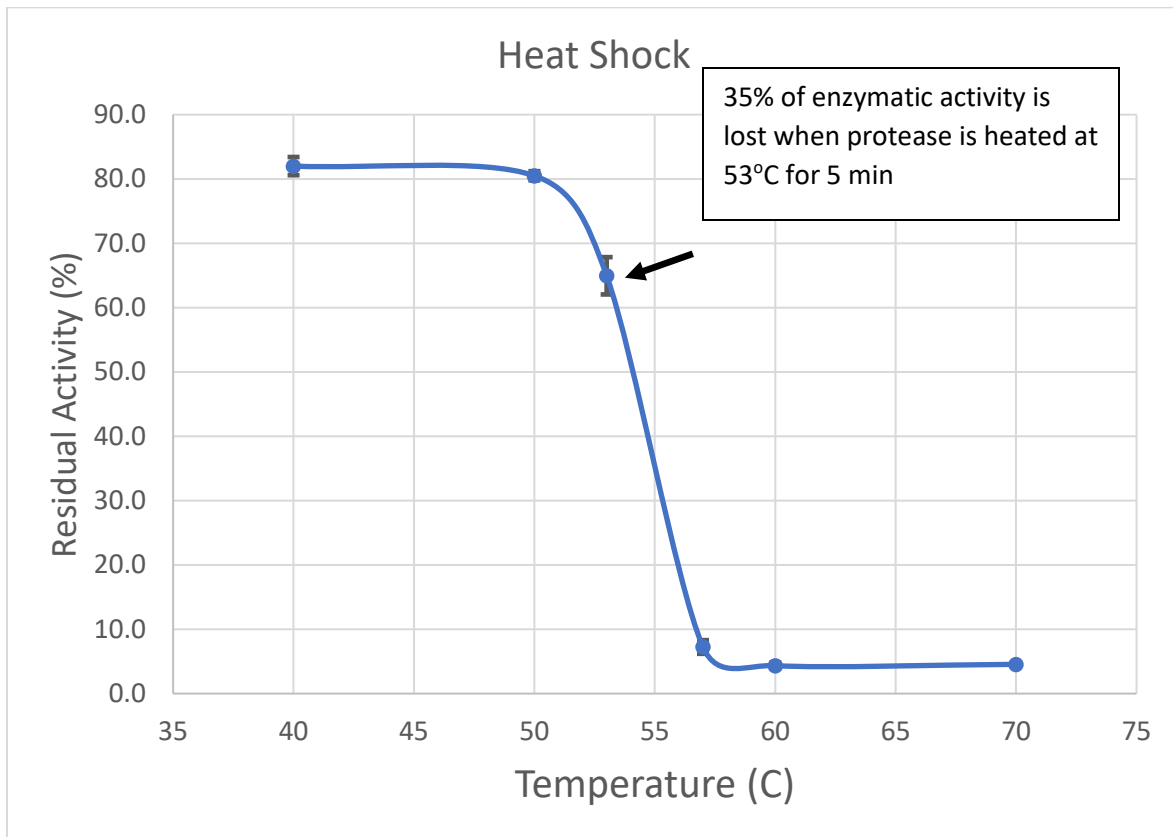
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Supplementary Figure 1



Supplementary Fig. 1 Heat shock. Residual enzymatic activity of M^{pro} protease after 5 min incubation at different temperatures.

Supplementary Table 1

M^{Pro} Inhibition Assay of the peptides from the first 5 rounds of selection

Peptide Name	Peptide Sequence	Conformation in the library	IC ₅₀ (μM)
M1	gaRQGLDEDLHRW	Linear	250
M2	gaAKAHPQANV	Linear	not detected
M3	gaRQDLDYQRRRGAGISSTLVQSRK	Linear	750
M4	gaHCTFKLKDRKWVARSGsgsrg	Cyclic	not detected
M5	gaTANAFLSgsgsrg	Cyclic	150
M6	gaIRGILRVVAL	Linear	not detected
M7	gaCKDCSFG	Linear	not detected
M8	gaLPNAAPSLVGSGSRG	Cyclic	not detected
M10	gaGRKKRRQRWRGAGEQKHPP	Linear	not detected
M11	gaLPPSLVQTVVVVAL	Linear	not detected
M14	gaPVHPQMQTETGTAHCGsgsrg	Cyclic	1200

Tested sequences are shown in capital letters. Lower case letters represent linker sequences.

Supplementary Table 2

Primers used for plasmid construction and PCR

Name	Sequence
P23	CCGCGAATGGTGAGATTGAGAA
P24	ACGCAAAAAGGCCATCCGTCAG
P33	aactaagcttTTCCTCCTGTTAGCCCAAAAAC
P34	aatactcgagGCTGTTTTGGCGGATGAGAGAA
P108	aatactcgagTTATTTTGGAGGATGGTCGCCACCA
T111	GGAAaagcttATGTCGGGATTCCGTAAGATG
T112	ataatctagaACCTTGAAGTAAAGGTTTTc
P209	aataaagcttATGtctagaGGTCTGGCTCAGGTTCTTCC
T227	TTAAaagcttATGCAAATCTTCGTCAAGACCTTG
T228	CCTTAttaattaaTTATCCACCGCGAAGACGTAAAAC
T229	TTAAttaattaaTAAGGAGGTacgcgtATGTCGGGATTCCGTAAGATGG
P276	ATGCAAATCTTCGTCAAGACCTTG
P277	GCTCCACTTCCAGTGTGATAGTC
T333	accagaacctgagccagaaccagaCTGAAACGTCACACCTGAACATTG
T334	tctggttctggctcaggttctggtGCGAGCTTGGTTAAGAAAGATATG
T335	CTAATAActcgagTTACGTCGCTTTTTCCGGCACAT
T336	atgcttTTCCTCCTGTTAttaattaaTTATCCACCGCGAAGACGTAAAAC
T337	ttaattaaTAACAGGAGGAAaagcatATGTCGGGATTCCGTAAGATGG

T277	TNTCNAGNATNGCNACNTGNTggtagtggctctagaggtGGTAAG
T343	ggtagtggctctagaggtGGTAAG
T344	NCANCANACNCTNTCNTTNTggtagtggctctagaggtGGTAAG
T345	NCANACNCTNTCNTTNTggtagtggctctagaggtGGTAAG
T346	NACNCTNTCNTTNTggtagtggctctagaggtGGTAAG
T347	NCTNTCNTTNTggtagtggctctagaggtGGTAAG
T348	NTCNTTNTggtagtggctctagaggtGGTAAG
T349	NTTNTggtagtggctctagaggtGGTAAG
T350	NCTggtagtggctctagaggtGGTAAG
T351	ANAGNAANCNTTNCNTTNTggtagtggctctagaggtGGTAAG
T352	GNAANCNTTNCNTTNTggtagtggctctagaggtGGTAAG
T353	ANCGNTTNCNTTNTggtagtggctctagaggtGGTAAG
T354	GNTTNCNTTNTggtagtggctctagaggtGGTAAG
T355	TNCNTTNTggtagtggctctagaggtGGTAAG
T356	CNTTNTggtagtggctctagaggtGGTAAG
T357	TNTggtagtggctctagaggtGGTAAG
T358	NCAGNANACGNTNTCCNTNTggtagtggctctagaggtGGTAAG
T359	GNANACGNTNTCCNTNTggtagtggctctagaggtGGTAAG
T360	NACGNTNTCCNTNTggtagtggctctagaggtGGTAAG
T361	GNTNTCCNTNTggtagtggctctagaggtGGTAAG
T362	NTCCNTNTggtagtggctctagaggtGGTAAG
T363	CNTNTggtagtggctctagaggtGGTAAG
T364	ANANCAANCNTTNCNTTNTggtagtggctctagaggtGGTAAG
T365	NCAANCNTTNCNTTNTggtagtggctctagaggtGGTAAG
T366	ANCNTTNCNTTNTggtagtggctctagaggtGGTAAG
T367	NCTTNCNTTNTggtagtggctctagaggtGGTAAG
T368	TNCNTTNTggtagtggctctagaggtGGTAAG
T369	NTTNTggtagtggctctagaggtGGTAAG
T370	gccggcACCACGCCGACGTTGAC
T371	AGNAANGANAGNTNTGNTGNgccggcACCACGCCGACGTTGAC
T372	AANGANAGNTNTGNTGNgccggcACCACGCCGACGTTGAC
T373	GANAGNTNTGNTGNgccggcACCACGCCGACGTTGAC
T374	AGNGTNTGNTGNgccggcACCACGCCGACGTTGAC
T375	GTNTGNTGNgccggcACCACGCCGACGTTGAC
T376	TGNTGNgccggcACCACGCCGACGTTGAC
T377	TGNgccggcACCACGCCGACGTTGAC
T378	ANAANGNAANCNTTNTgccggcACCACGCCGACGTTGAC
T379	ANGGNAANCNTTNTgccggcACCACGCCGACGTTGAC
T380	GNAANCNTTNTgccggcACCACGCCGACGTTGAC
T381	ANCGNTTNTgccggcACCACGCCGACGTTGAC
T382	GNTTNTgccggcACCACGCCGACGTTGAC
T383	TNCTNTgccggcACCACGCCGACGTTGAC
T384	TNTgccggcACCACGCCGACGTTGAC
T385	AGNANGANANCNTTNTGNgccggcACCACGCCGACGTTGAC
T386	ANGGANANCNTTNTGNgccggcACCACGCCGACGTTGAC
T387	GANANCNTTNTGNgccggcACCACGCCGACGTTGAC
T388	ANCGTNTTNTGNgccggcACCACGCCGACGTTGAC
T389	GTNTTNTGNgccggcACCACGCCGACGTTGAC
T390	TNCTGNgccggcACCACGCCGACGTTGAC
T391	ANAAANGNAAGNTTNTgccggcACCACGCCGACGTTGAC
T392	AANGNAAGNTTNTgccggcACCACGCCGACGTTGAC
T393	GNAANGNTTNTgccggcACCACGCCGACGTTGAC

T394	AGNGNTTGNTNTgccggcACCACGCCGACGTTGAC
T395	GNTTGNTNTgccggcACCACGCCGACGTTGAC
T396	TGNTNTgccggcACCACGCCGACGTTGAC
T397	NGTNAANGTNTGNACNAGNATNTGNATNGTNGGTAAGgtagtggctctagaggtGGTAAG
T398	NGTNTGNACNAGNATNTGNATNGTNGGTAAGgtagtggctctagaggtGGTAAG
T399	NACNAGNATNTGNATNGTNGGTAAGgtagtggctctagaggtGGTAAG
T400	NATNTGNATNGTNGGTAAGgtagtggctctagaggtGGTAAG
T401	NATNGTNGGTAAGgtagtggctctagaggtGGTAAG
T402	NGGTAAGgtagtggctctagaggtGGTAAG
T403	CNTCNAGNTCNGGNCNGGGNTCNGCNCNTTNGTAAgtagtggctctagaggtGGTAAG
T404	CNAGNTCNGGNCNGGGNTCNGCNCNTTNGTAAgtagtggctctagaggtGGTAAG
T405	CNGGNCNGGGNTCNGCNCNTTNGTAAgtagtggctctagaggtGGTAAG
T406	GNGGNTCNGCNCNTTNGTAAgtagtggctctagaggtGGTAAG
T407	CNGCNCNTTNGTAAgtagtggctctagaggtGGTAAG
T408	CNTTNGTAAgtagtggctctagaggtGGTAAG
T409	TAAgtagtggctctagaggtGGTAAG
T410	NGTCNANGTCNGNACGNGNATCNGNATCNTNGGTAAGgtagtggctctagaggtGGTAAG
T411	NGTCNGNACGNGNATCNGNATCNTNGGTAAGgtagtggctctagaggtGGTAAG
T412	NACGNGNATCNGNATCNTNGGTAAGgtagtggctctagaggtGGTAAG
T413	NATCNGNATCNTNGGTAAGgtagtggctctagaggtGGTAAG
T414	NATCNTNGGTAAGgtagtggctctagaggtGGTAAG
T415	TNGTAAgtagtggctctagaggtGGTAAG
T416	CNTNAAGNTNTGGNCNAGGNTNTGCNTNGTTNGTAAgtagtggctctagaggtGGTAAG
T417	NAAGNTNTGGNCNAGGNTNTGCNTNGTTNGTAAgtagtggctctagaggtGGTAAG
T418	NTGGNCNAGGNTNTGCNTNGTTNGTAAgtagtggctctagaggtGGTAAG
T419	NAGGNTNTGCNTNGTTNGTAAgtagtggctctagaggtGGTAAG
T420	NTGCNTNGTTNGTAAgtagtggctctagaggtGGTAAG
T421	NGTTNGTAAgtagtggctctagaggtGGTAAG
T422	TTACCNACNATNCANATNCTNGTNCANACNTTNACNgccggcACCACGCCGACGTTGAC
T423	ACNATNCANATNCTNGTNCANACNTTNACNgccggcACCACGCCGACGTTGAC
T424	CANATNCTNGTNCANACNTTNACNgccggcACCACGCCGACGTTGAC
T425	CTNGTNCANACNTTNACNgccggcACCACGCCGACGTTGAC
T426	CANACNTTNACNgccggcACCACGCCGACGTTGAC
T427	TTNACNgccggcACCACGCCGACGTTGAC
T428	CNAANGANGCNGANCCNCGNCCNGANCTNGANGgccggcACCACGCCGACGTTGAC
T429	ANGCNGANCCNCGNCCNGANCTNGANGgccggcACCACGCCGACGTTGAC
T430	ANCCNCGNCCNGANCTNGANGgccggcACCACGCCGACGTTGAC
T431	GNCCNGANCTNGANGgccggcACCACGCCGACGTTGAC
T432	ANCTNGANGgccggcACCACGCCGACGTTGAC
T433	ANGgccggcACCACGCCGACGTTGAC
T434	ANGATNCNGATNCNCGTNCNGACNTNGACNgccggcACCACGCCGACGTTGAC
T435	CNGATNCNCGTNCNGACNTNGACNgccggcACCACGCCGACGTTGAC
T436	CNCGTNCNGACNTNGACNgccggcACCACGCCGACGTTGAC
T437	CNGACNTNGACNgccggcACCACGCCGACGTTGAC
T438	TNGACNgccggcACCACGCCGACGTTGAC
T439	CNAACNANGCANANCCTNGNCCANANCTTNANGgccggcACCACGCCGACGTTGAC
T440	ANGCANANCTNGNCCANANCTTNANGgccggcACCACGCCGACGTTGAC
T441	ANCTNGNCCANANCTTNANGgccggcACCACGCCGACGTTGAC
T442	GNCCANANCTTNANGgccggcACCACGCCGACGTTGAC
T443	ANCTTNANGgccggcACCACGCCGACGTTGAC
T444	ANGgccggcACCACGCCGACGTTGAC

