

Supplemental Information

The S1/S2 site containing PRRA affects cellular tropism of SARS-CoV-2 and ACE2 usage by the closely related Bat RaTG13

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Supplemental Methods

Protein sequences used in this study

SARS-CoV-2 Spike Protein

MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFS
NVTWFHAIHVSQTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLLIV
NNATNVVIKVCFEFQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMD
LEGKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPPGFSALEPLVDLPIGINITRFQT
LLALHRSYLTSGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSET
KCTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISN
CVADYSVLYNSASFSTFKCYGVSPTKLNLDLCTNVYADSFVIRGDEVQRQIAPGQTGKIA
DYNKLPDDFTGCVIAWNSNNLDSKVGNYNYLYRFRKSNLKPFERDISTEYIYQAGST
PCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVLSFELLHAPATVCGPKKSTNLVKN
KCVNFNENGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQTLEILDITPCSFGGVS
VITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGNSVVFQTRAGCLIGAEH
VNNSYECDIPIGAGICASYQTQTNSPRRARSVASQSIAYTMSLGAENSVAYSNNNSIAIPT
NFTISVTTEILPVSMTKTSVDCTMYICGDSTECSNLLQYGSFCTQLNRALTGIAVEQDK
NTQEVFAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSFIEDLLFNKVTLADAGFIKQY
GDCLGDIAARDLCAQKFNGLTVLPPLLTDEMIAQYTSALLAGTITSGWTFGAGAALQIP
FAMQMAYRFNGIGVTQNVLYENQKLIANQFNSAIGKIQDLSSTASALGKLQDVVNQN
AQALNTLVKQLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAA
EIRASANLAATKMSECVLQSKRVDVFCGKGYHLMSFPQSAPHGVVFLHVTVYVPAQEK
FTTAPAICHGKAHFPREGVFSVNGTHWFVTQRNFYEPQIITDNTFVSGNCDVVIGIVN
NTVYDPLQPELDSFKEELDKYFKNHTSPDVDLGDISGINASVVNIQKEIDRLNEVAKNLN
ESLIDLQELGKYEYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCCLKGCCSCGCC
KFDEDDSEPVKGVKLYHT

Bat RaTG13 Spike Protein

MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSSTRGVYYPDKVFRSSVLHSTQDLFLPFFS
NVTWFHAIHVSQTNGIKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLLIVN
NATNVVIKVCFEFQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMDL
EGKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPPGFSALEPLVDLPIGINITRFQTL
LALHRSYLTSGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETK
CTLKSFTVEKGIYQTSNFRVQPTDSIVRFPNITNLCPFGEVFNATTFASVYAWNRKRISNC
VADYSVLYNSTSFSTFKCYGVSPTKLNLDLCTNVYADSFVITGDEVQRQIAPGQTGKIADY
NYKLPDDFTGCVIAWNSKHIDAKEGGNFNYLYRFRKANLKPFERDISTEYIYQAGSKPC
NGQTGLNCYYPYRYGFYPTDGVGHQPYRVVLSFELLNAPATVCGPKKSTNLVKNKC
VNFNENGLTGTGVLTESNKKFLPFQQFGRDIADTTDAVRDPQTLEILDITPCSFGGVS
VITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWRVYSTGNSVVFQTRAGCLIGAEHVN
NSYECDIPIGAGICASYQTQTNSRVSASQSIAYTMSLGAENSVAYSNNNSIAIPTNFTISVTT
EILPVSMTKTSVDCTMYICGDSTECSNLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQ

VKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSFIEDLLFNKVTLADAGFIKQYGDCLGDIAA
RDLICAQKFNGLTVLPPLLDEMIAQYTSALLAGTITSGWTFGAGAALQIPFAMQMAYR
FNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSTASALGKLQDVVNQNAQALNTLVK
QLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLA
ATKMSECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTVPAQEKNFTTAPAICH
DGKAHFPREGVFVSNGTHWFVTQRNFYEPQIITDNTFVSGSCDVVIGIVNNTVYDPLQP
ELDSFKEELDKYFKNHTSPDVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELG
KYEQYIKWPWYIWLGFIAGLIAIIMVTIMLCCMTSCCCLKGCCSCGSCCKFDEDDSEPV
LKGVKLHYT

Pangolin Spike Protein

MFVFLFVLPLVSSQCVNLTTRTGIPPGYTNSSSTRGVYYPDKVFRSSILHLTQDLFLPFFSN
VTWFNTINYQGGFKKFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDARTQSLNINA
TNVVIKVECFQCTDPFLGVYHNNKTVWENEFVYSSANNCTFEYISQPFLMDLEGK
QGNFKNLREFVFNVDGYFKIYSKHTPIDLVRDLPRGFAALEPLVDLPIGINITRFQTLA
LHRSYLTPGNLESGWTTGAAAYVGYLQQRFTLLSYNQNGTITDAVDCSLDPLSETKCT
LKSLTVEKGIYQTSNFRVQPTISIVRFPNITNLCPFGEVFNASKFASVYAWNRKRISNCVA
DYSVLYNSTSFSTFKCYGVSPTKLNLCFTNVYADSFVVKGDEVQRQIAPGQTGVIADYN
YKLPDDFTGCVIAWNSVKQDALTTGGNYGYLYRFRKSKLKPFERDISTEYQAGSTPCN
GQVGLNCYYPLERYGFHPTTGVDNYQPFVVLSEFLLNGPATVCGPKLSTTLVKDKCV
NFNFNGLTGTGVLTTSKKQFLPFQFGRDISDITDAVRDPQTLEILDITPCSFVGGVSVITP
GTNTSNQVAVLYQDVNCTEVPMAIHAEQLTPAWRVYSAGANVFQTRAGCLVGAEHVN
NSYECDIPVGAGICASYHSMSSLRVSNQRSIIAYTMSLGAENSVAYSNNIAIPTNFTISVT
TEILPVSMTKTSVDCTMYICGDSIECSNLLQYGSFCTQLNRALTGIAVEQDKNTQEVFA
QVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSFIEDLLFNKVTLADAGFIKQYGDCLGDIA
ARDLICAQKFNGLTVLPPLLDEMIAQYTSALLAGTITSGWTFGAGAALQIPFAMQMAY
RFNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSTASALGKLQDVVNQNAQALNTLV
KQLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANL
AATKMSECVLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTVPAQEKNFTTAPAIC
HEGKAHFPREGVFVSNGTHWFITQRNFYEPQIITDNTFVSGSCDVVIGIVNNTVYDPLQ
PELDSFKEELDKYFKNHTSPDVDLGDISGINASVVNIQKEIDRLNEVAKNLNESPIDLQEL
GKYEQYIKWPWYIWLGFIAGLIAIIMVTIMLCCMTSCCCLKGCCSCGSCCKFDEDDSEP
VLKGVKLHYT

Intermediate horseshoe bat (*Rhinolophus affinis*) ACE2

MSGSSWLLLSLVAVTTAQSTTEDEAKMFLDKFNKAEDLSHQSSLASWDYNTNINDEN
VQKMDEAGAKWSAFYEEQSKLAKNYSLEQIQNVTVKLQLQILQQSGSPVLSEDKSKRL
NSILNAMSTIYSTGKVCKPNKPQECLLLEPGLDNIMGTSKDYNERLWAWEGWRAEVGK
QLRPLYEEYVVLKNEMARGYHYEDYGDYWRDYETEESPGPGYSRDQLMKDVERIFT
EIKPLYEHLHAYVRAKLMDTYPFHISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGQKP

NIDVTDEMLKQGWDADRIFKEAEKFFVSVGLPNMTEGFWNNSMLTEPGDGRKVVCHP
TAWDLGKGFRIKMCTKVTMEDFLTAHHEMGHIQYDMAYASQPYLLRNGANEGFHEA
VGEVMSLSVATPKHLKTMGLLSPDFREDNETEINFLKQALNIVGTLPFTYMLEKWRW
MVFKGEIPKEEWMKKWWEMKRKIVGVVEPVPHDETYCDPASLFHVANDYSFIRYYTR
TIFEFQFHEALCRIAQHGDGPLHKCDISNSTDAGKLLHQMLSVGKSQAWTKTLEDIVDSR
NMDVGPLLKYFEPLYTWLQEQNRKSYVGWNTDWSPYSDQSIKVRISLKSALGENAYE
WNDNEMYLFRSSVAYAMREYFLKEKHQILFGAENVVWSNLKPRISFNHVTSPGNLS
DIIPRPEVEGAIRMSRSRINDAFRLDDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVMVAVV
VVGIVVLIITGIRDRRKTQARSEENPYSSVDLSKGENNPGFQNGDDVQTSF

Syrian Hamster ACE2

MSSSSWLLLSLVAVTTAQSIIIEQAKTFLDKFNQEAEDLSYQSALASWNYNTNITEENAQ
KMNEAAAKWSAFYEEQSKLAKNYSLQEVQNLTIKRLQALQQSGSSALSADKNKQLN
TILNTMSTIYSTGKVCNPKNPQECLLLEPGLDDIMATSTDYNERLWAWEGWRAEVBGKQ
LRPLYEEYVVLKNEMARANNYEDYGDYWRGDYEAEGADGYNYNGNQLIEDVERTFK
EIKPLYEQLHAYVRTKLMNTYPSYISPTGCLPAHLLGDMWGRFWTNLYPLTVPFQKPN
IDVTDAMVNQGWNAERIFKEAEKFFVSVGLPYMTQGFWENSMLTDPGDDRKVVCHPT
AWDLGKGFRIKMCTKVTMDNFLTAHHEMGHIQYDMAYATQPFLRNGANEGFHEA
VGEIMSLSAATPEHLKSIGLLPSDFQEDNETEINFLKQALTIVGTLPFTYMLEKWRWMV
FKGDIPKEQWMEKWWEMKREIVGVVEPLPHDETYCDPAALFHVSNDSYFIRYYTRTIY
QFQFQEALCQAAKHGDGPLHKCDISNSTEAGQKLLNMLRLGKSEPWTLAENVVGARN
MDVRPLLNYFEPLSVWLKEQNKNSFVGWNTDWSPYADQSIKVRISLKSALGENAYEWD
DNEMYLFRASVAYAMRVYFAKNKTQTVPFQVEDIRVSDLKPRVSFNFFVTSPQNVSDII
PRNEVEEAURLSRGRINDVFGLDNSLEFLGINPTLSPPYQPPVTIWLIIFGVVMGIVVGI
IILIFTGIKGRKKKNETKREENPYDSVDIGKGESNAGFLSNDDAQTSTF

Mouse ACE2

MSSSSWLLLSLVAVTTAQLTEENAKTFLNPNQEAEDLSYQSSLASWNYNTNITEENA
QKMSEAAAKWSAFYEEQSKTAQSFSLQEIQTPIIKRQLQALQQSGSSALSADKNKQLNTI
LNTMSTIYSTGKVCNPKNPQECLLLEPGLDEIMATSTDYNSRLWAWEGWRAEVBGKQLR
PLYEEYVVLKNEMARANNYNDYGDYWRGDYEAEGADGYNYNRNQLIEDVERTFAEIK
PLYEHLHAYVRRKLMNTYPSYISPTGCLPAHLLGDMWGRFWTNLYPLTVPFAQKPNID
VTDAMMNQGWDAERIFQEAKEKFFVSVGLPHMTQGFWANSMLTEPADGRKVVCHPTA
WDLGHGDFRIKMCTKVTMDNFLTAHHEMGHIQYDMAYARQPFLRNGANEGFHEAV
GEIMSLSAATPKHLKSIGLLPSDFQEDSETEINFLKQALTIVGTLPFTYMLEKWRWMV
RGEIPKEQWMEKWWEMKREIVGVVEPLPHDETYCDPASLFHVSNDSYFIRYYTRTIYQF
QFQEALCQAAKYNGSLHKCDISNSTEAGQKLLKMLSLGNSEPWTKALENVVGARNMD
VKPLLNYFQPLFDWLKEQNRNSFVGWNTWSPYADQSIKVRISLKSALGANAYEWTNN
EMFLFRSSVAYAMRKYFSIKNQTVPFLEEDVRVSDLKPRVSFYFFVTSPQNVSDVIPRSE

VEDAIRMSRGRINDVFGLNDNSLEFLGIHPTLEPPYQPPVTIWLIIFGVVMALVVVGIIILIV
TGIKGRKKKNETKREENPYDSMDIGKGESNAGFQNSDDAQTSE

Pig ACE2

MSGSFWLLLSLIPVTAQAQSTTEELAKTFLEKFNLEAEDLAYQSSLASWTINTNITDENIQK
MNDARAKWSAFYEEQSRIAKTYPLDEIQTLLKRLQALQQSGTSGLSADKSKRLNTILN
TMSTIYSSGKVLDPNNPQECLVLEPGLDEIMENSKDYSRRLWAWESWRAEVBKQLRPL
YEEYVVLNEMARANNYEDYGDYWRGDYEVTGTGDYDYSRNQLMEDVERTFAEIKPL
YEHLHAYVRAKLMDAYPSRISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGEKPSIDVT
EAMVNQSWDAIRIFEEAEKFFVSIKLPNMTQGFWNNSMLTEPGDGRKVVCHPTAWDLG
KGDRIKMTKVTMDDFLTAHHEMGHIQYDMAYAIQPYLLRNGANEGFHEAVGEIMSL
SAATPHYLKALGLLPPDFYEDSETEINFLKQALTIIVGTLPTFTYMLEKWRWMVFKGEIPK
EQWMQKWWEMKREIVGVVEPLPHDETYCDPAALFHVAEDYSFIRYYTRTIYQFQFHEA
LCRTAKHEGPLYKCDISNSTEAGQKLLQMLSLGKSEPWTALLENIVGVKTMDEVKPLLSY
FEPLLTWLKAQNGNSSVGWNTDWTYPADQSIKVRISLKSALGEDAYEWNENEMYLFRS
SIAYAMRNYFSSAKNETIPFGAVDVVWVSDLKPRISFNFFVTSPANMSDIIPRSDVEKAISM
SRSRINDAFRLDDNTLEFLGIQPTLGPPEPPVTVWLIIFGVVMGLVVVGIVVLIFTGIRDR
RKKKQASSEENPYGSMDLSKGESNSGFQNGDDIQTSE

Chinese hamster ACE2

MSSSSWLLLSLVAVTTAQSIIIEQAKTFLDKFNQEAEDLSYQSALASWNYNTNITEENAQ
KMNEAAAKWSAFYEEQSKLAKNYSLQEVQNLIKRQLQALQQSGSSALSADKNKQLNT
ILNTMSTIYSTGKVCNPKNPQECLLLEPGLDDIMATSTDYNERLWAWEGWRAEVBKQL
RPLYEEYVVLKNEMARANNYKDYGDYWRGDYEAEGADGYNNGNQLIEDVERTFKEI
KPLYEQLHAYVRTKLMDTYPSFISPTGCLPAHLLGDMWGRFWTNLYPLTVPFQKPNID
VTDAMVNQGWDAERIFKEAEKFFVSVGLPHMTQGFVWNSMLTDPGDDRKVVCHPTA
WDLGKGDRIKMTKVTMDNFLTAAHHEMGHIQYDMAYATQPFLRNGANEGFHEAV
GEIMSLSAATPKHLKSIKLLPSNFHEDNETEINFLKQALTIIVGTLPTFTYMLEKWRWMV
KGDIPKEKWMKWWEMKREIVGVVEPLPHDETYCDPAALFHVSNDYSFIRYYTRTIYQ
FQFQEALCQAAKHGDLHKCDISNSTEAGQKLLNMLRLGKSEPWTALENVVGARNM
DVRPLLNYFEPLSVWLKEQNKNSFVGWNTDWSPYADQSIKVRISLKSALGENAYEWN
NEMYLFRATVAYAMRVYFAKNKTQTVLFGVEDIRVSDLKPRVSNFFVTSPQNVSDIIP
RNEVEEA VRFSRGRINDVFGLDDNSLEFLGINPTLAPPYQPPVTIWLIIFGVVMGIVVGI
VILIVTGIRARKKNEAKREENPYDSVDIGKGESNAGFQNSDDVQTSF

Ferret ACE2

MLGSSWLLLSLAALTAQAQSTTEDLAKTFLEKFNIEAEELSYQNSLASWNYNTNITDENI
QKMNIAGAKWSAFYEEESQHAHTYPLEEIQDPIIKRQLRALQQSGSSVLSADKRERLNTI

LNAMSTIYSTGKACNPNNPQECLLLEPGLDDIMENSKDYNERLWAWEGWRSEVVGKQLR
PLYEEYVALKNEMARANNYEDYGDYWRGDYEEEWADGYSYSRNQLIEDVEHTFTQIK
PLYEHLHAYVRAKLMDAYPSRISPTGCLPAHLLGDMWGRFWTNLYPLMVPFRQKPNID
VTDAMVNSQSWDARRIFEEAETFFVSVGLPNMTEGFWQNSMLTEPGDNRKVVCHPTAW
DLGKRDFRIKMCTKVTMDDFLTAHHEMGHIQYDMAYAEQPFLLRNGANEGFHEAVGEI
MSLSAATPNHLKNIGLLPPDFSEDSETDINFLKQALTIVGTLPTFTYMLEKWRWMVFKG
EIPKEQWMQKWWEMKRDIVGVVEPLPHDETYCDPAALFHVANDYSFIRYYTRTIYQFQ
FQEALCQIAKHEGPLYKCDISNSSEAGQKLHEMLSLGRSKPWTFALERVVGAKTMDVR
PLLNYFEPLFTWLKEQNRNSFVGVWNTDWSPYADQSIKVRISLKSALGEKAYEWNDEM
YFFQSSIAYAMREYFSKVKNTIPFVGKDVRSVLKPRISFNFIVTSPENMSDIIPRADVEE
AIRKSRGRINDAFRLDDNSLEFLGIQPTLEPPYQPPVTIWLIVFGVVMGVVVVGIFLLIFSG
IRNRRKNNQARSEENPYASVDLSKGENNPGFQNVDDVQTSF

Bovine ACE2

MTGSFWLLLSLVAVTAAQSTTEEQAKTFLEKFNHEAEDLSYQSSLASWNYNTNITDENV
QKMNEARAKWSAFYEEQSRMAKTYSLLEIQNLTLKRQLKALQHSQTSALSAEKSKRLN
TILNKMSTIYSTGKVLDPNTQECLALEPGLDDIMENSRDYNRRLLWAWEGWRAEVGKQL
RPLYEEYVVLNEMARANNYEDYGDYWRGDYEVGTGAGDYDYSRDQLMKDVERTFAE
IKPLYEQLHAYVRAKLMHTYPSYISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSI
DVTEKMENQSWDAERIFKEAEKFFVSISLPYMTQGFWDNSMLTEPGDGRKVVCHPTAW
DLGKGDRIKMCTKVTMDDFLTAHHEMGHIQYDMAYAAQPYLLRNGANEGFHEAVGE
IMLSAATPHYLKALGLLAPDFHEDNETEINFLKQALTIVGTLPTFTYMLEKWRWMVFK
GEIPKQQWMEKWWEMKREIVGVVEPLPHDETYCDPAACLFHVAEDYSFIRYYTRTIYQF
QFHEALCKTAKHEGALFKCDISNSTEAGQRLQLMLRLGKSEPWTLALENIVGIKTMQV
PLLNYFEPLFTWLKEQNRNSFVGVWSTEWTPYSDQSIKVRISLKSALGENAYEWNDEM
YLFQSSVAYAMRKYFSEARNETVLFGEDNVWVSDKKPRISFKFFVTSPNNVSDIIPRTEV
ENAIRLSRDRFNDVFQLDDNSLEFLGIQPTLGPPYEPPTIWLIIIFGVVMGVVVIGIVVLIF
TGIRNRRKKNQASSEENPYGSVDLNLKGENNSGFQNIIDVQTSL

Grivet (African green monkey) ACE2

MSSSSWLLLSLVAVTAAQSTIEEQAKTFLDKFNHEAEDLFYQSSLASWNYNTNITEENV
QNMNNAAGEKWSAFLKEQSTLAQMYPLQAIQNLTVKLQLQALQQNGSSVLSEDKSKRL
NTILNTMSTIHSTGKVCNPNNPQECLLLDPGLNEIMEKSLDYNERLWAWEGWRSEVVGK
QLRPLYEEYVVLKNEMARANHYKDYGDYWRGDYEVNGVDGYDYNRDQLIEDVERTF
EEIKPLYEHLHAYVRAKLMNAYPSYISPTGCLPAHLLGDMWGRFWTNLYSLTVPFGQK
PNIDVTDAMVNQAWNAQRIFKEAEKFFVSVGLPNMTQGFWENSMLTDPGNVQKVVCH
PTAWDLGKGDRIIMCTKVTMDDFLTAHHEMGHIQYDMAYAAQPFLLRNGANEGFHE
AVGEIMLSAATPKHLKSIGLLSPDFQEDNETEINFLKQALTIVGTLPTFTYMLEKWRWM
VFKGEIPKDQWMKKWWEMKREIVGVVEPVPHDETYCDPASLFHVSNDYSFIRYYTRTL
YQFQFQEALCQAAKHEGPLHKCDISNSTEAGQKLLNMLKLGKSEPWTLALENVVGAKN

MSVRPLLNYFEPLFTWLKDQNKNSFVGWSTDWSPYADQSIKVRISLKSALGANAYKWN
DNEMYLFRSSVAYAMRQYFLENKHQTLFGEEDVRVADLKPRISFNFYVTAPKNVSDIIP
RTEVEEAIRFSRSRINDAFQLNDNSLEFLGIQSTLVPPYQSPITTLIVFGVVMVAVIVAGIV
VLIFTGIRDRKKNQARSEENPYASIDISKGENNPGFQNTDDVQTSF

Malayan pangolin ACE2

MSGSSWLLLSLVAVTAAQSTSDEEAKTFLEKFNSEAEELSYQSSLASWNYNTNITDENV
QKMNVAGAKWSTFYEEQSKIAKNYQLQNIQNDTIKRQLQALQLSGSSALSADKNQRLN
TILNTMSTIYSTGKVCNPGNPQECSLLEPGLDNIMESSKDYNRLWAWEGWRSEVVGKQL
RPLYEEYVVLKNEMARANHYEDYGDYWRGDYEAEGANGYNYSRDHLIEDVEHIFTQI
KPLYEHLHAYVRAKLMDNYPHISPTGCLPAHLLGDMWGRFWTNLYPLTVPFRQKPN
DVTDAMVNQTDANRIFKEAEKFFVSVGLPKMTQTFWENSMLTEPGDGRKVVCHPTA
WDLGKHDFRIKMCTKVTMDDFLTAHHEMGHIQYDMAYAMQPYLLRNGANEGFHEAV
GEIMSLSAATPKHLKNIGLLPPDFYEDNETEINFLKQALTIVGTLPTFTYMLEKWRWMVF
SGQIPKEQWMKKWWEMKREIVGVVEPVPHDETYCDPASLFHVANDYSFIRYYTRTIYQ
FQFQEALCQTAKHEGPLHKCDISNSAEAGQKLLQMLSLGKSKPWTLALERVVGTKNMD
VRPLLNYFEPLLTWLKEQNKNSFVGWNTDWSPYAAQSIKVRISLKSALGEKAYEWNDS
EMYLFRSSVAYAMREYFSKVKKQTIPFEDECVRVSDLKPRVSFIFVTLVKNVSAVIPRA
EVEEAIRISRSRINDAFRLDDNSLEFLGIQPTLQPPYQPPVTIWLIVFGVVMGVVVVGIVV
LIFTGIRDRKKNQARSEQNPYASVDLSKGENNPGFQNVDDVQTSF

Supplemental Figures and Legends

Figure S1. Protease repertoires in Calu-3 and Caco-2. Calu-3 and Caco-2 cells were infected with SARS-CoV-2 USA/WA1-2020 at MOI of 0.1 for 4, 24, and 48 hours. RNA was isolated from uninfected and infected cells were subject to mRNA-Seq. Reads per kilobase per million mapped reads (RPKM) was calculated to show expression level of proteases that may cleave SARS-CoV-2 spike protein at the S1/S2 site. Also refer to Table S1.

