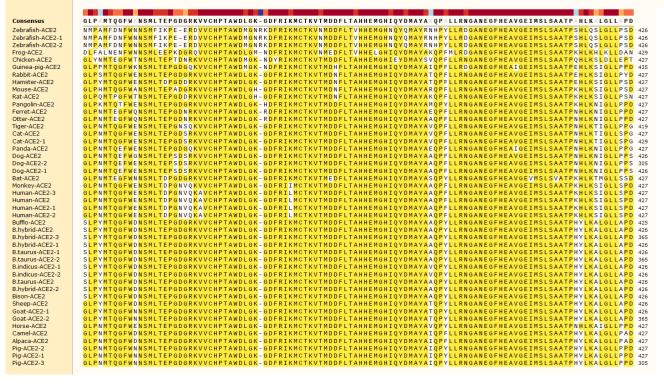
-MXGS/WLLLSLVA-VTAAQSTTEEXAKTFLEKFNXEAEDLSYQSSLASWNYNTNITDENVQKMNEAXAKWSAFYEEQSXXAKTYXLXEIQNLTXKRQLXALQ Consensus Zebrafish-ACE2 - MCARWILLIALA - SVACCQ VEDRAREFINKFDEEASDINYQYT ASMAYNTDISQENADKEAEAYAIWSEYNNKHSEESINAYPIDQISDPIIKHQLQKLU 100
- MCARWILLIALA - SVACCQ VEDRAREFINKFDEEASDINYQYT ASMAYNTDISQENADKEAEAYAIWSEYYNKHSEESINAYPIDQISDPIIKHQLQKLU 100
- MCGLWLHFFGIGLLAH - SVACCQ VEDRAREFINKFDEEASDINYQYT LASMAYNTDISQENADKEAEAYAIWSEYYNKHSEESINAYPIDQISDPIIKHQLQKLU 100
- MCGLWLHFFGIGLLAH - SVACCQ VEDRAREFINKFDEEASDINYQH SALAWAYNTH SALAWAYNTH SALAWAYNT ASKASAF SALAWAYNT ASKA Zebrafish-ACE2-1 100 Zebrafish-ACE2-2 Frog-ACE2 Chicken-ACE2 Chicken-ACE2 Guinea-pig-ACE2 Rabbit-ACE2 Hamster-ACE2 Mouse-ACE2 Rat-ACE2 Pangolin-ACE2 Ferret-ACE2 -----MLGSSWL Otter-ACE2 Tiger-ACE2 Cat-ACE2 Cat-ACE2-1 Panda-ACE2 Dog-ACE2 Dog-ACE2-2 100 Dog-ACE2-1 Bat-ACE2 101 Monkey-ACE2 Human-ACE2-3 Human-ACE2 Human-ACE2-1 101 Human-ACE2-2 101 Bufflo-ACE2 100 B.hybrid-ACE2 101 B.hybrid-ACE2-3 40 MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMMEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMMEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMAKTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEQAKTFLEKFNHEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMARTYSLEEIQNLTLKRQLKALQ
MTGSFWLLLSLVA-VTAAQSTTEEDLAKTFLEKFNEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMARTYSLEEIQNLTLKRQLKALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMARTYSLEEIQNLTLKRQLKALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNEAEDLSVQSSLASWNYNTNITDENVQKMNEARAKWSAFYEEQSRMARTYSLEEIQNLTLKRQLKALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNEAEDLSVQSSLASWNYNTNITDENVQKMNDARAKWSSFFYEEKSKAAKTYPLEEIQNVTLKRQLQALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNLEAEDLSVQSSLASWNYNTNITDENVQKMNDARAKWSSFYEEQSRAARTYDLEEIQNVTLKRQLQALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNLEAEDLSVQSSLASWNYNTNITDENVQKMNDARAKWSSFYEEQSRAARTYDLEEIDNVTLKRQLQALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNLEAEDLSVQSSLASWNYNTNITDENVQKMNDARAKWSSFYEEQSRAAKTYPLEEIQNVTLKRQLQALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNLEAEDLAVQSSLASWNYNTNITDENVQKMNDARAKWSSFYEEQSRAAKTYPLEEIQNVTLKRQLQALQ
MSGSFWLLLSLVA-VTAAQSTTEELAKTFLEKFNLEAEDLAVQSSLASWNYNTNITDENVQKMNDARAKWSSFYEEQSRAARTYPLEEIQNTLKRQLQALQ
MSGSFWLLSLVA-VTAAQSTTEELAKTFLEKFNLEAEDLAVQSSLASWNYNTNITDENVQKMNDARAKWSSFYEEQSRIAKTYPLDEIQTLL B.hybrid-ACE2-1 101 B.taurus-ACE2-1 B.taurus-ACE2-2 B.indicus-ACE2-1 B.indicus-ACE2-2 B.taurus-ACE2 101 B.hybrid-ACE2-2 101 Bison-ACE2 101 Sheep-ACE2 Goat-ACE2-1 101 Goat-ACE2-2 Horse-ACE2 Camel-ACE2 Alpaca-ACE2 101 101 Pig-ACE2-2 101 Pig-ACE2-1 101 Pig-ACE2-3 SGSS×LSADKSKRLNTILN×MSTIYSTGKVC×PNNPQECL×LEPGLDDIMENS×DYN×RLWAWEGWRAEVGKQLRPLYEEYVVLKNEMARA--NNYEDYGDYWRGDYEV Consensus

Zebrafish-ACE2 Zebrafish-ACE2-1 Zebrafish-ACE2-2 Frog-ACE2 Chicken-ACE2 Guinea-pig-ACE2 Rabbit-ACE2 Hamster-ACE2 Mouse-ACE2 Rat-ACE2 Pangolin-ACE2 Ferret-ACE2 Otter-ACE2 Tiger-ACE2 Cat-ACE2 Cat-ACE2 Cat-ACE2-1 Panda-ACE2 Dog-ACE2 Dog-ACE2-2 Dog-ACE2-1 Bat-ACE2 Monkey-ACE2 Human-ACE2-3 Human-ACE2-1 Human-ACE2-1 Human-ACE2-2 Bufflo-ACE2 B.hybrid-ACE2 B.hybrid-ACE2-3 B.hvbrid-ACE2-1 B.taurus-ACE2-1 B.taurus-ACE2-1 B.taurus-ACE2-2 B.indicus-ACE2-1 B.indicus-ACE2-2 B.taurus-ACE2 B.hybrid-ACE2-2 Bison-ACE2 Sheep-ACE2 Goat-ACE2-1 Goat-ACE2-2 Goat-ACE2-2 Horse-ACE2 Camel-ACE2 Alpaca-ACE2 Pig-ACE2-2 Pig-ACE2-1

Pig-ACE2-3

SGSS LSADKSRUNTILL MSTIVSTOKVC PNPQEGL LEPGLDDIMENS DVN RLWAMEGWRAEVGKQLRPLYEEYVVLKNEMARA - NNYEDYGDYWRODYE' Z
DKOSGALSPDKASE LRRIMSENSIJMITATVGKIDDFTDGOTLEFGLES MAE BROYDE RLHWEGWWEVATGHKMRFLYEK VOLKNEARL-NNYEDHODYWRODYE' Z
DKOSGALSPDKASE LRRIMSHINSTINSTOK VCK DOES REDELLEFGLED HANSIDYHER LWAMEGWRAG OWRAG GREAT RLHWEGWWEV TO ROOS WARNES WE EVOLUTE REAL ARL - NNYEDYGDWWGANGE' Z
DROSSYLSPEKYSR INSVMISHSIJVSTGVVCKATEFFDDLY LEFGLED HANSIDYHER LWAMEGWRAG VGREAT RLYVELYVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSGALSADKSKQ INTILSTNSILVSTGVVCK WEN PROECILLEFGLED HANSIDYHER LWAMEGWRSVVCKQ IRFLYEEYVVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKSKQ INTILSTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHER LWAMEGWRSVVCKQ IRFLYEEYVVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHER LWAMEGWRSVVCKQ IRFLYEEYVVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHS RLWAMEGWRSVVCKQ IRFLYEEYVVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHS RLWAMEGWRSVVCKQ IRFLYEEYVVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHS RLWAMEGWRSVCKQ IRFLYEEYVVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHS RLWAMEGWRSVCKQ IRFLYEEYVVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHS RLWAMEGWRSVCKQ IRFLYEEYVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHS RLWAMEGWRSVCKQ IRFLYEEYVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTNSILVSTGVVCW RYB PROECILLEFGLE HANSIDYHS RLWAMEGWRSVCKQ IRFLYEEYVLKNEMARA - NNYEDYGDWWGANGE' Z
SOSSALSADKNING INTILHTN 208 208 210 217 209 209 209 209 209 209 209 201 209 211 209 208 87 208 209 209 209 209 209 209 209 207 208 147 208 208 147 208 208 208 208 147

Consensus	XGXXXYDYSRDQLIXDVERTFXEIKPLYEXLHAYVRAKLMXTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFXQKPNIDVTXAMVNQSWDAXRIFKEAEKFFVSV
Zebrafish-ACE2	IDDPKYSYSRDOVIEDARRIYKEILPLYKELHAYVRAKLODVYPG-HIGSDACLPAHLLGDMWGRFWTNLYPLMIPYPDRPDIDVSSAMVEOGWDEIRLFKEAEKFFMSV 3
Zebrafish-ACE2-1	IDDPKYSYSRDOVIEDARRIYKEILPLYKELHAYVRAKLODVYPG-HIGSDACLPAHLLGDMWGRFWTNLYPLMIPYPDRPDIDVSSAMVEOGWDEIRLFKEAEKFFMSV 3
Zebrafish-ACE2-2	IDDPKYSYSRDOVIEDARRIYKEILPLYKELHAYVRAKLODVYPG-HIGSDACLPAHLLGDMWGRFWTNLYPLMIPYPDRPDIDVSSAMVEOGWDEIRLFKEAEKFFMSV 3
Frog-ACE2	LATDMYAYSRDDLIKDVERTYOEILPLYKELHAFVRGNLOOVYGSRYISDSGCLPAHLLGDMWGRFWTNLYPLMVPYPNKESIDVTPTMVAOGWTIERMFKEAEIFFKSV 3
Chicken-ACE2	DYPEEYKYSRDOLVODVEKTFEOIKPLYOHLHAYVRHRLEOVYGSELINPTGCLPAHLLGDMWGRFWTNLYNLTVPYPEKPNIDVTSAMAOKNWDAMKIFKTAEAFFASI 3
Guinea-pig-ACE2	EDMDGYNYSRNOLTEDVERTFAEIKPLYEOLHAYVRTKLMETYPS-RISPVGCLPAHLLGDMWGRFWTELYSLTVPFOOKPNIDVTDAMESOSWDAEKIFKEAEKFFVSV 3
Rabbit-ACE2	EGADGYDYSRSÖLIDDVERTESEIKPLYEÖLHAFVRTKLMDAYPS-RISPTGCLPAHLLGDMWGRFWTNLYSLTVPFGÖKPNIDVTDTMVNÖGWDAERIFKEAEKFFVSV 3
Hamster-ACE2	EGADGYNYNGNOLIEDVERTFKEIKPLYEÖLHAYVRTKLMNTYPS-YISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGÖKPNIDVTDAMVNÖGWNAERIFKEAEKFFVSV 3
Mouse-ACE2	EGADGYNYNRNÔLIEDVERTFAEIKPLYEHLHAYVRRKLMDTYPS-YISPTGCLPAHLLGDMWGRFWTNLYPLTVPFAÔKPNIDVTDAMMNÔGWDAERIFGEAEKFFVSV 3
Rat-ACE2	EGVEGYNYNRNOLTEDVENTEKETKPLYEGLHAYVRTKIMEVYPS-YTSPTGCLPAHLLGDMWGRFWTNLYPLTTPFLOKPNTDVTDAMVNOSWDAERTEKEAEKFFVSV 3
Pangolin-ACE2	EGANGYNYSRDHLIEDVEHIFTOIKPLYEHLHAYVRAKLMONYPS-HISPTGCLPAHLLGDMWGRFWTNLYPLTVPFRÔKPNIDVTDAMVNÔTWDANRIFKEAEKFFVSV 3
Ferret-ACE2	EWADGYSYSRNOLIEDVEHTFTÖIKPLYEHLHAYVRAKLMDAYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLMVPFRÖKPNIDVTDAMVNÖSWDARRIFEEAETFFVSV 3
Otter-ACE2	EWADGYNYSRNÔLIEDVEHTFTŐIKPLYKHLHAYVRAKLMDAYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLMVPFGŐKPNIDVTDAMVNÖRWDARRIFEEAEKFFVSV 3
Tiger-ACE2	EWTDGYNYSRSÖLIKDVEHTFTÖIKPLYOHLHAYVRAKLMDSYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGÖKPNIDVTDAMVNÖSWDARRIFKEAEKFFVSV 3
Cat-ACE2	EWTDGYNYSRSÖLIKDVEHTFTÖIKPLYÖHLHAYVRAKLMDTYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGÖKPNIDVTDAMVNÖSWDARRIFKEAEKFFVSV 3
Cat-ACE2-1	EWTDGYNYSRSOLIKDVEHTFTÖIKPLYOHLHAYVRAKLMDTYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGÖKPNIDVTDAMVNÖSWDARRIFKEAEKFFVSV 3
Panda-ACE2	EWTDGYNYSRNÔLIEDVEHTFTÖIKPLYEHLHAYVRAKLMDTYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLTIPFGÖKPNIDVTHAMVNÖNWDARRIFEEAEKFFVSV 3
Dog-ACE2	EWENGYNYSRNÔLIDDVELTFTÖIMPLYOHLHAYVRTKLMDTYPS-YISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGÖKPNIDVTNAMVNÖSWDARKIFKEAEKFFVSV 3
Dog-ACE2-2	EWENGYNYSRNOLIDDVEHTFTOIMPLYOHLHAYVRTKLMDTYPS-YISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGOKPNIDVTNAMVNOSWDARKIFKEAEKFFVSV 19
Dog-ACE2-1	EWENGYNYSRNÖLTDDVEHTFTÖIMPLYÖHLHAYVRTKLMDTYPS-YISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGÖKPNIDVTNAMVNÖSWDARKIFKEAEKFFVSV 3
Bat-ACE2	EGSPDLEYSRDÖLIKDVERIFAEIKPLYEOLHAYVRTKLMDTYPF-HISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGÖKPNIDVTDAMLNÖNWDAKRIFKEAEKFFVSI 3
Monkey-ACE2	NGVDGYDNNRDÖLIEDVERTFEEIKPLYEHLHAYVRAKLMNAYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFGÖKPNIDVTDAMVNÖAWNAORIFKEAEKFFVSV 3
Human-ACE2-3	NGVDGYDYSRGOLIEDVEHTFEEIKPLYEHLHAYVRAKLMNAYPS-YISPIGCLPAHLLGDMWGRFWTNLYSLTVPFGOKPNIDVTDAMVDOAWDAORIFKEAEKFFVSV 3
Human-ACE2	NGVDGYDYSRGOLIEDVEHTFEEIKPLYEHLHAYVRAKLMNAYPS-YISPIGCLPAHLLGDMWGRFWTNLYSLTVPFGOKPNIDVTDAMVDOAWDAORIFKEAEKFFVSV 3
Human-ACE2-1	NGVDGYDYSRGOLIEDVEHTFEEIKPLYEHLHAYVRAKLMNAYPS-YISPIGCLPAHLLGDMWGRFWTNLYSLTVPFGOKPNIDVTDAMVDOAWDAORIFKEAEKFFYSV 3
Human-ACE2-2	NGVDGYDYSRGÖLIEDVEHTFEEIKPLYEHLHAYVRAKLMNAYPS-YISPIGCLPAHLLGDMWGRFWTNLYSLTVPFGÖKPNIDVTDAMVDÖAWDAÖRIFKEAEKFFVSV 3
Bufflo-ACE2	TGAGDYDYSRDÓLMKDVEHTFAEIKPLYEOLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENÖSWDAERIFKEAEKFFVSI 3
B.hvbrid-ACE2	TGAGDYDYSRDOLMKDVERTFAEIKPLYEOLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENOSWDAERIFKEAEKFFVSI 3
B.hybrid-ACE2-3	TGAGDYDYSRDÓLMKDVERTFAEIKPLYEÓLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENÓSWDAERIFKEAEKFFVSI 2
B.hvbrid-ACE2-1	TGAGDYDYSRDÒLMKDVERTFAEIKPLYEÖLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENÖSWDAERIFKEAEKFFVSI 3
B.taurus-ACE2-1	TGAGDYDYSRDÓLMKDVERTFAEIKPLYEŐLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENŐSWDAERIFKEAEKFFVSI 3
B.taurus-ACE2-2	TGAGDYDYSRDOLMKDVERTFAEIKPLYEOLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENOSWDAERIFKEAEKFFVSI 25
B.indicus-ACE2-1	TGAGDYDYSRDOLMKDVERTFAEIKPLYEOLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENOSWDAERIFKEAEKFFVSI 3
B.indicus-ACE2-2	TGAGDYDYSRDÒLMKDVERTFAEIKPLYEÖLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENÖSWDAERIFKEAEKFFVSI 3
B.taurus-ACE2	TGAGDYDYSRDOLMKDVERTFAEIKPLYEÖLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENOSWDAERIFKEAEKFFVSI 3
B.hybrid-ACE2-2	TGAGDYDYSRDÓLMKDVERTFAEIKPLYEŐLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENŐSWDAERIFKEAEKFFVSI 3:
Bison-ACE2	TGAGDYDYSRDOLMKDVERTFAEIKPLYEOLHAYVRAKLMHTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMENQSWDAERIFKEAEKFFVSI 3:
Sheep-ACE2	TGAGDYDYSRDOLMKDVERTFEEIKPLYEOLHAYVRAKLMDTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMKNOSWDAERIFKEAEKFFVSI 3:
Goat-ACE2-1	TGAGDYDYSRDOLMKDVERTFAEIKPLYEOLHAYVRAKLMNTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPFEHKPSIDVTEKMKNOSWDAERIFKEAEKFFVSI 3:
Goat-ACE2-2	TGAGDYDYSRDÓLMKDVERTFAEIKPLYEÖLHAYVRAKLMNTYPS-YISPTGCLPAHLLGDMWGRFWTNLYSLTVPEEHKPSIDVTEKMKNÖSWDAERIFKEAEKFFVSI 2
Horse-ACE2	EGPSGYDYSRDQLTEDVERTFAEIKPLYEHLHAYVRAKLMDTYPS-HINPTGCLPAHLLGDMWGRFWTNLYSL[NoTitle]QKPNIDVTDAMVDQSWDAKRIFEEAEKFFVSV 3
Camel-ACE2	MWAGDYDYSRDOLMGDVEHTFAEIKPLYEHLHAYVRAKLMDVYPS-HISPTGCLPAHLLGDMWGRFWTNLYSLTVPFGOKPNIDVTEAMENOSWDAKRIFKEAEKFFVSI 3
Alpaca-ACE2	MWAGDYDYSRDOLMGDVEHTFAEIKPLYEHLHAYVRAKLMDAYPS-RISPTGCLPAHLLGDMWGRFWTNLYSLTVPFGOKPNIDVTEAMENOSWDAKRIFKEAEKFFVSI 3
Pig-ACE2-2	TGTGDYDYSRNOLMEDVERTFAEIKPLYEHLHAYVRAKLMDAYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGEKPSIDVTEAMVNOSWDAIRIFEEAEKFFVSI 3
Pig-ACE2-1	TGTGDYDYSRNOLMEDVERTFAEIKPLYEHLHAYVRAKLMDAYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGEKPSIDVTEAMVNOSWDAIRIFEEAEKFFVSI 3
Pig-ACE2-3	TGTGDYDYSRNQLMEDVERTFAEIKPLYEHLHAYVRAKLMDAYPS-RISPTGCLPAHLLGDMWGRFWTNLYPLTVPFGEKPSIDVTEAMVNQSWDAIRIFEEAEKFFVSI 19
-	



EDNETEINFLLKQALTIVGTLPFTYMLEKWRWMVFKGEIPK QWM KWWEMKREIVGVVEPLPHDETYCDPA LFHVANDYSFIRYYTRTIYQFQFQEALC AKHEG Consensus Zebrafish-ACE2 Zebrafish-ACE2-: Zebrafish-ACE2-2 Frog-ACE2 Chicken-ACE2 Chicken-ACE2
Guinea-pip-ACE2
Rabbit-ACE2
Hamster-ACE2
Hamster-ACE2
Rat-ACE2
Pangolin-ACE2
Pangolin-ACE2
Otter-ACE2
Tiger-ACE2
Cat-ACE2
Cat-ACE2
Dog-ACE2
Dog-ACE2
Dog-ACE2
Dog-ACE2-1
Dog-ACE2-2
Dog-ACE2-2
Dog-ACE2-1
Dog-ACE2-1 Bat-ACE2 Monkey-ACE2 Human-ACE2-3 Human-ACE2 Human-ACE2-1 Human-ACE2-1 Human-ACE2-2 Bufflo-ACE2 B.hybrid-ACE2 B.hybrid-ACE2-3 B.hybrid-ACE2-1 B.hybrid-ACE2-1 B.taurus-ACE2-1 B.taurus-ACE2-1 B.indicus-ACE2-2 B.indicus-ACE2-2 B.taurus-ACE2 B.taurus-ACE2 B.tybrid-ACE2-2 Bison-ACE2 Goat-ACE2-1 Goat-ACE2-2 Horse-ACE2 Appaca-ACE2 Pig-ACE2-2 Pig-ACE2-3 Pig-ACE2-3

Zebrafish-ACE2 Zebrafish-ACE2-1 Zebrafish-ACE2-2 Frog-ACE2 Chicken-ACE2 Chicken-ACE2 Guinea-pig-ACE2 Rabbit-ACE2 Hamster-ACE2 Mouse-ACE2 Rat-ACE2 Pangolin-ACE2 Ferret-ACE2 Otter-ACE2 Cat-ACE2 Cat-ACE2-1 Panda-ACE2-1 Panda-ACE2 Dog-ACE2 Dog-ACE2-2 Dog-ACE2-1 Bat-ACE2 Monkey-ACE2 Human-ACE2-3 Human-ACE2 Human-ACE2 Human-ACE2-1 Human-ACE2-2 Human-ACE2-2 Bufflo-ACE2 B.hybrid-ACE2-3 B.hybrid-ACE2-3 B.hybrid-ACE2-1 B.taurus-ACE2-1 B.taurus-ACE2-2 B.indicus-ACE2-2 B.indicus-ACE2-2 B.indicus-ACE2-2 B.taurus-ACE2 B.taurus-ACE2 B.taurus-ACE2-2 Bison-ACE2-2 Bison-ACE2-2 Horse-ACE2-2 Gost-ACE2-2 Pig-ACE2-2 Pig-ACE2-2 Pig-ACE2-2 Pig-ACE2-3

Pig-ACE2-3

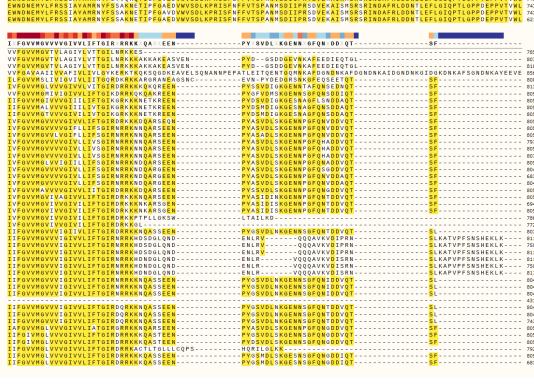
Consensus

Zebrafish-ACE2 Zebrafish-ACE2-1 Zebrafish-ACE2-2 Frog-ACE2 Chicken-ACE2 Guinea-pig-ACE2 Rabbit-ACE2 Hamster-ACE2 Mouse-ACE2 Rat-ACE2 Pangolin-ACE2
Ferret-ACE2
Otter-ACE2
Tiger-ACE2 Tiger-ACE2
Cat-ACE2
Cat-ACE2
Cat-ACE2-1
Panda-ACE2
Dog-ACE2-2
Dog-ACE2-2
Dog-ACE2-1
Bat-ACE2
Human-ACE2-1
Human-ACE2-1
Human-ACE2-1
Human-ACE2-1
Bufflo-ACE2
Bufflo-ACE2
Bufflo-ACE2
ButhacCE2-1 B.hvbrid-ACE2 B.hvbrid-ACE2-3 B.hvbrid-ACE2-1 B.taurus-ACE2-1 B.taurus-ACE2-2 B.indicus-ACE2-1 B.indicus-ACE2-2 B.taurus-ACE2 B.hybrid-ACE2-2 Bison-ACE2 Sheep-ACE2 Goat-ACE2-1 Goat-ACE2-1 Goat-ACE2-2 Horse-ACE2 Camel-ACE2 Alpaca-ACE2 Pig-ACE2-2 Pig-ACE2-1 Pig-ACE2-3

Consensus

Consensus
Zebrafish-ACE2-1
Zebrafish-ACE2-1
Zebrafish-ACE2-2
Zebrafish-ACE2-2
Zebrafish-ACE2-2
Zebrafish-ACE2-2
Lebrafish-ACE2-2
Guinea-pig-ACE2
Rabibt-ACE2
Hamster-ACE2
Mouse-ACE2
Rat-ACE2
Pangolin-ACE2
Ferret-ACE2
Otter-ACE2
Tiger-ACE2
Cat-ACE2
Cat-ACE2-1 Cat-ACE2-1 Panda-ACE2 Dog-ACE2 Dog-ACE2-2 Dog-ACE2-1 Bat-ACE2 Monkey-ACE2 Human-ACE2-3 Human-ACE2 Human-ACE2-1 Human-ACE2-2 Bufflo-ACE2 B.hybrid-ACE2-3 B.hybrid-ACE2-3 B.hybrid-ACE2-1 B.taurus-ACE2-1 B.indicus-ACE2-1 B.indicus-ACE2-2 B.indicus-ACE2-2 B.indicus-ACE2-2 B.indicus-ACE2-2 B.indicus-ACE2-2 B.indicus-ACE2-1 Goat-ACE2-1 Goat-ACE2-1 Goat-ACE2-1 Horse-ACE2 Human-ACE2-1 Horse-ACE2 Camel-ACE2 Alpaca-ACE2 Pig-ACE2-2 Pig-ACE2-1 Pig-ACE2-3

EWNDNEMYLFRSSVAYAMRXYFSXXKNQTIXFGEENVWVSDLKPRISFXFFVTSPXNVSDIIPRTEVEXAIRXSRXRINDAFRLDDNSLEFLGIQPTLGPPYEPPVTIWL 743 742



Consensus	
Zebrafish-ACE2	
	785
Zebrafish-ACE2-1	807
Zebrafish-ACE2-2	818
Frog-ACE2	TMNTTF 862
Chicken-ACE2	808
Guinea-pig-ACE2	813
Rabbit-ACE2	805
Hamster-ACE2	805
Mouse-ACE2	805
Rat-ACE2	805
Pangolin-ACE2	805
Ferret-ACE2	805
Otter-ACE2	805
Tiger-ACE2	797
Cat-ACE2	805
Cat-ACE2-1	807
Panda-ACE2	805
Dog-ACE2	804
Dog-ACE2-2	683
Dog-ACE2-1	804
Bat-ACE2	805
Monkey-ACE2	805
Human-ACE2-3	694
Human-ACE2	805
Human-ACE2-1	786
Human-ACE2-2	772
Bufflo-ACE2	803
B.hybrid-ACE2	811
B.hybrid-ACE2-3	750
B.hybrid-ACE2-1	811
B.taurus-ACE2-1	811
B.taurus-ACE2-2	750
B.indicus-ACE2-1	811
B.indicus-ACE2-2	804
B.taurus-ACE2	804
B.hybrid-ACE2-2	804
Bison-ACE2	431
Sheep-ACE2	804
Goat-ACE2-1	804
Goat-ACE2-2	743
Horse-ACE2	805
Camel-ACE2	805
Alpaca-ACE2	805
Pig-ACE2-2	792
Pig-ACE2-1	805
Pig-ACE2-3	683

Supplemental Fig. S1: Multiple sequence alignment of vertebrate ACE2 orthologs/paralogs. Sequence of ACE2 protein precursors were extracted from NCBI Gene and relevant databases (https://www.ncbi.nlm.nih.gov/gene). The protein sequences were aligned using the multiple sequence alignment tools of ClustalW or Muscle through an EMBL-EBI port (https://www.ebi.ac.uk/) under the default parameters.