

Figure 1

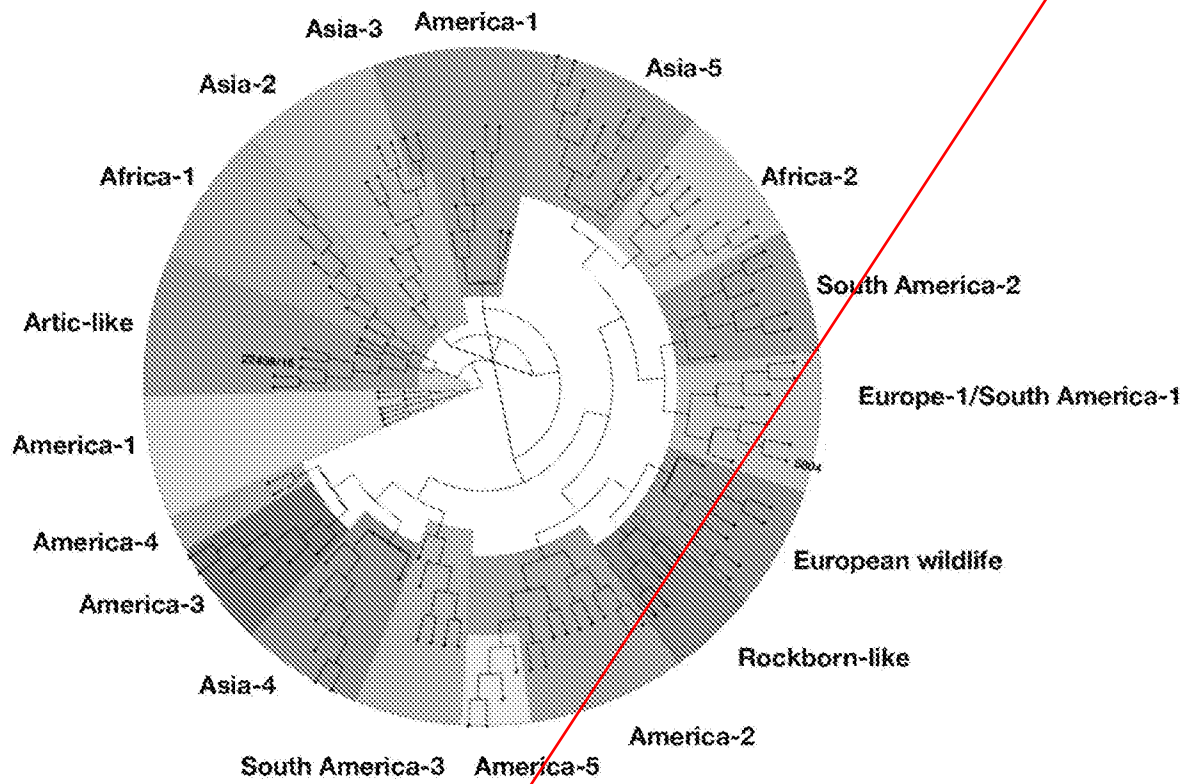


Figure 2

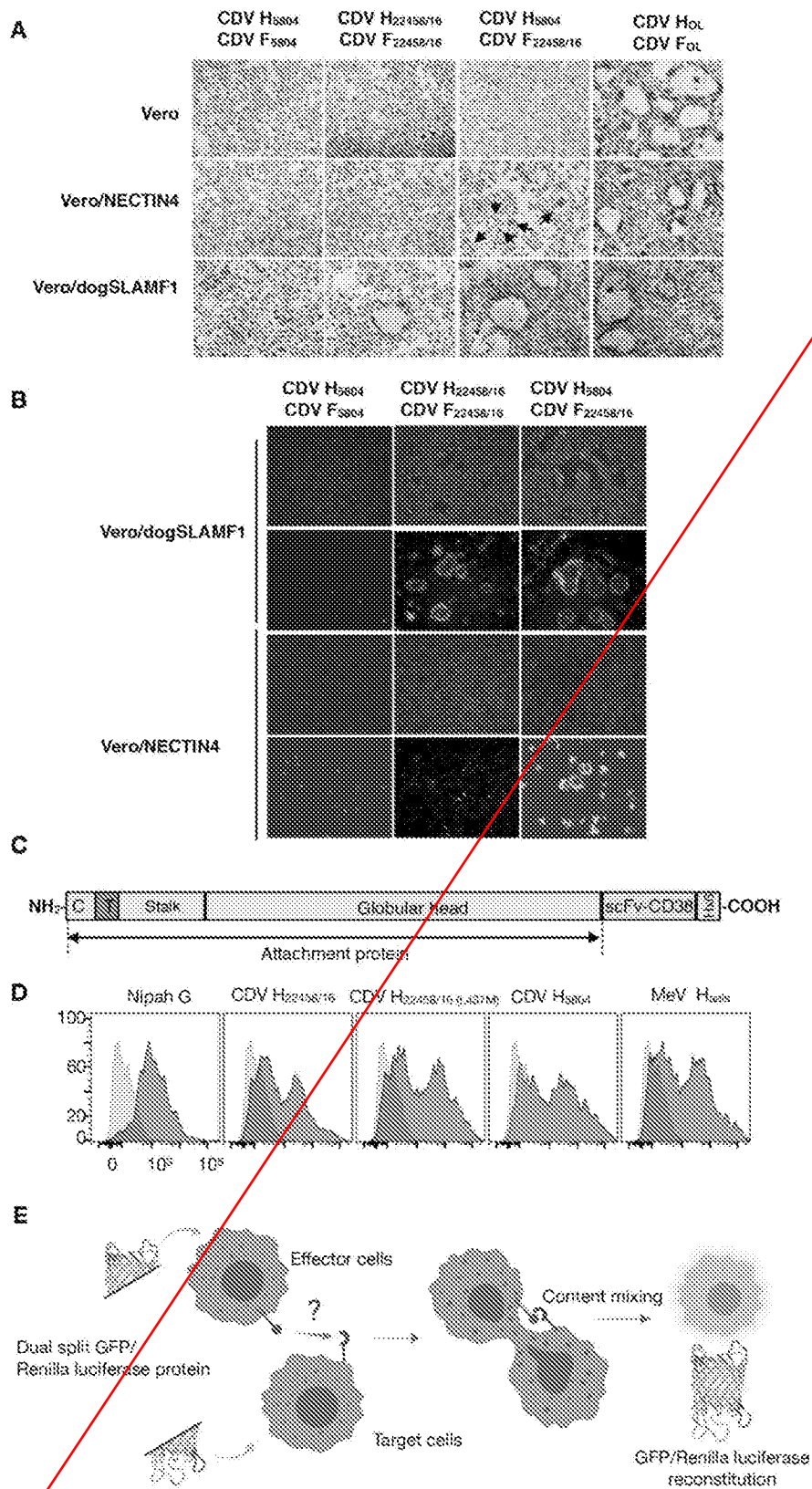


Figure 2 (cont.)

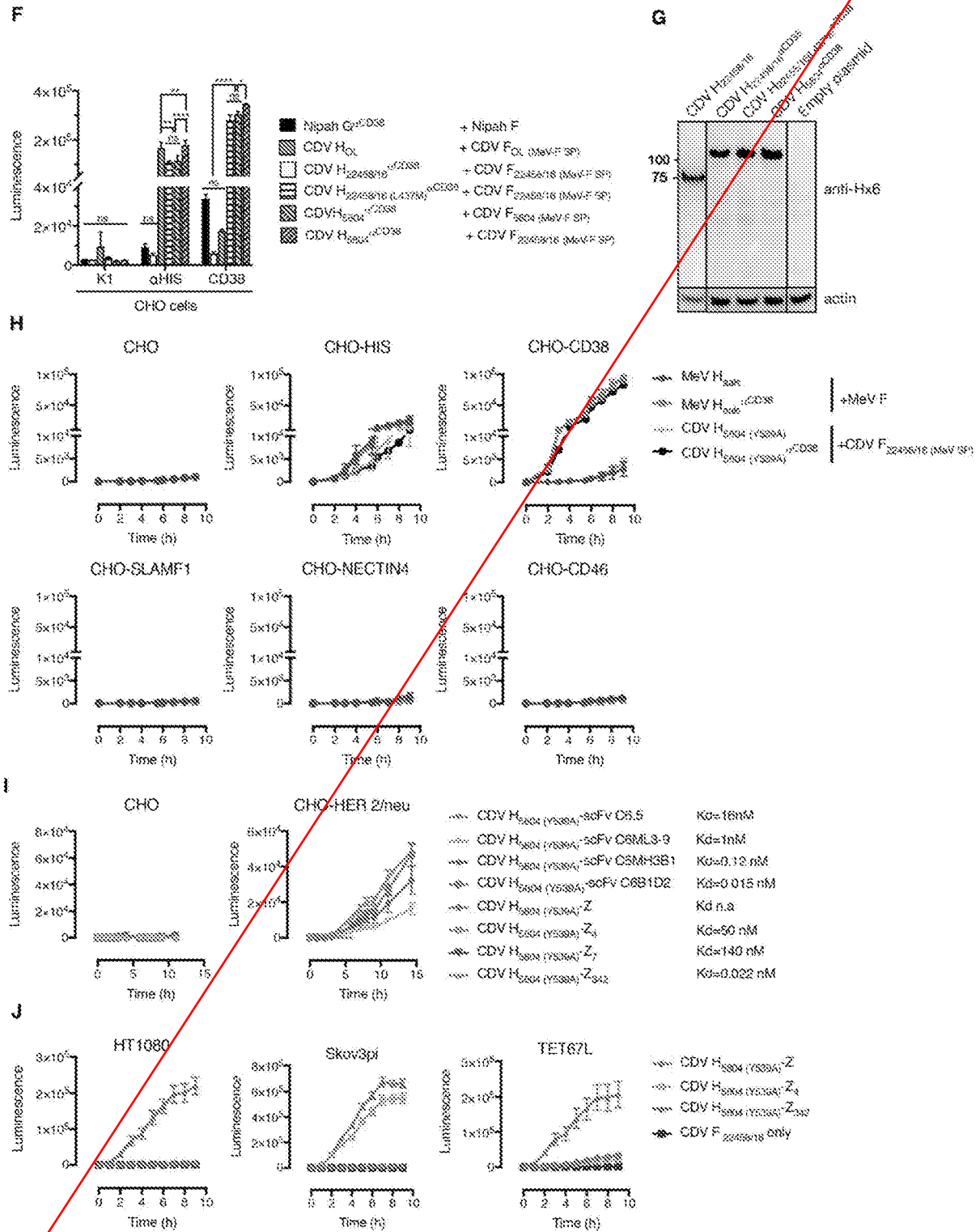


Figure 3

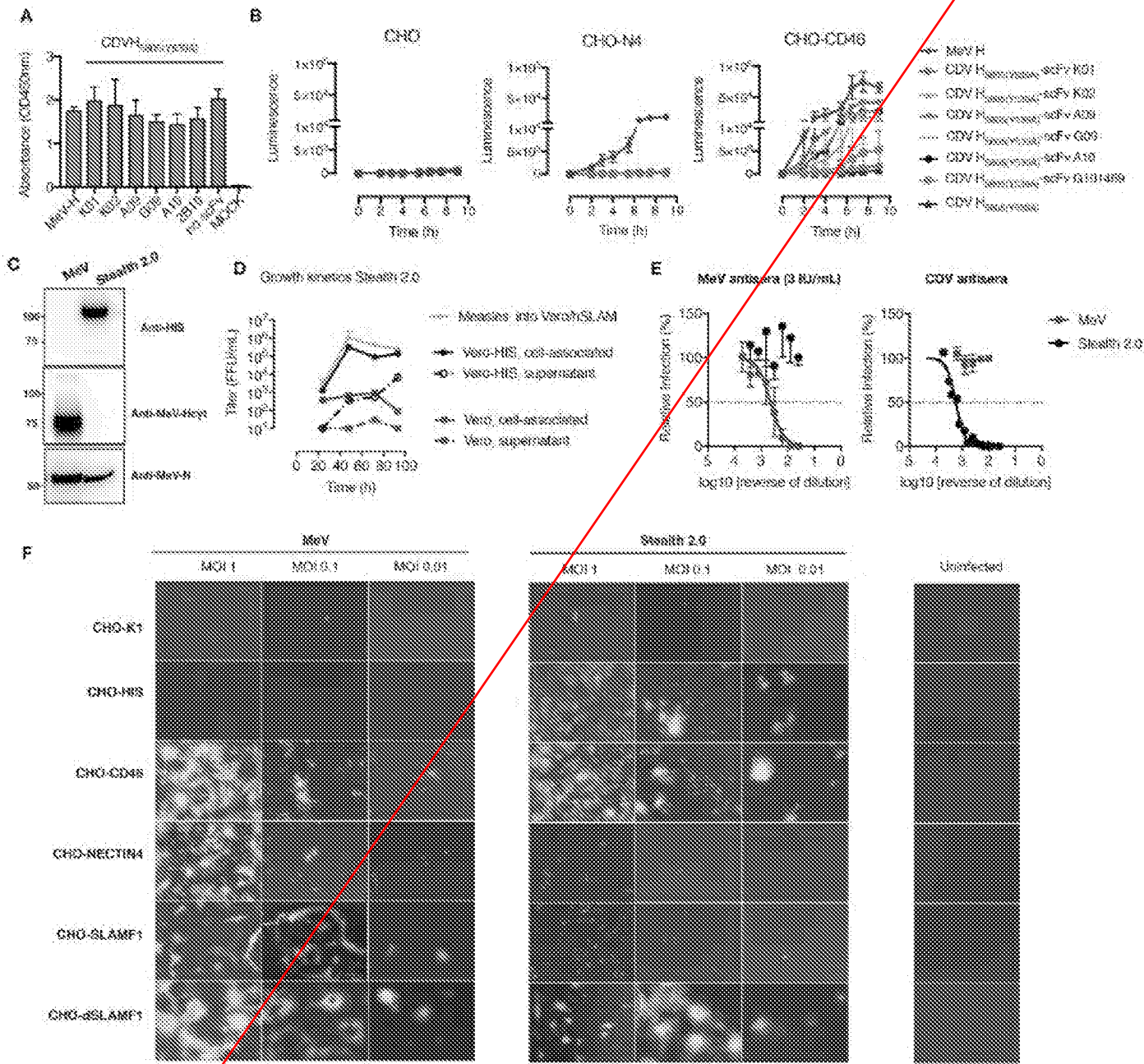


Figure 4

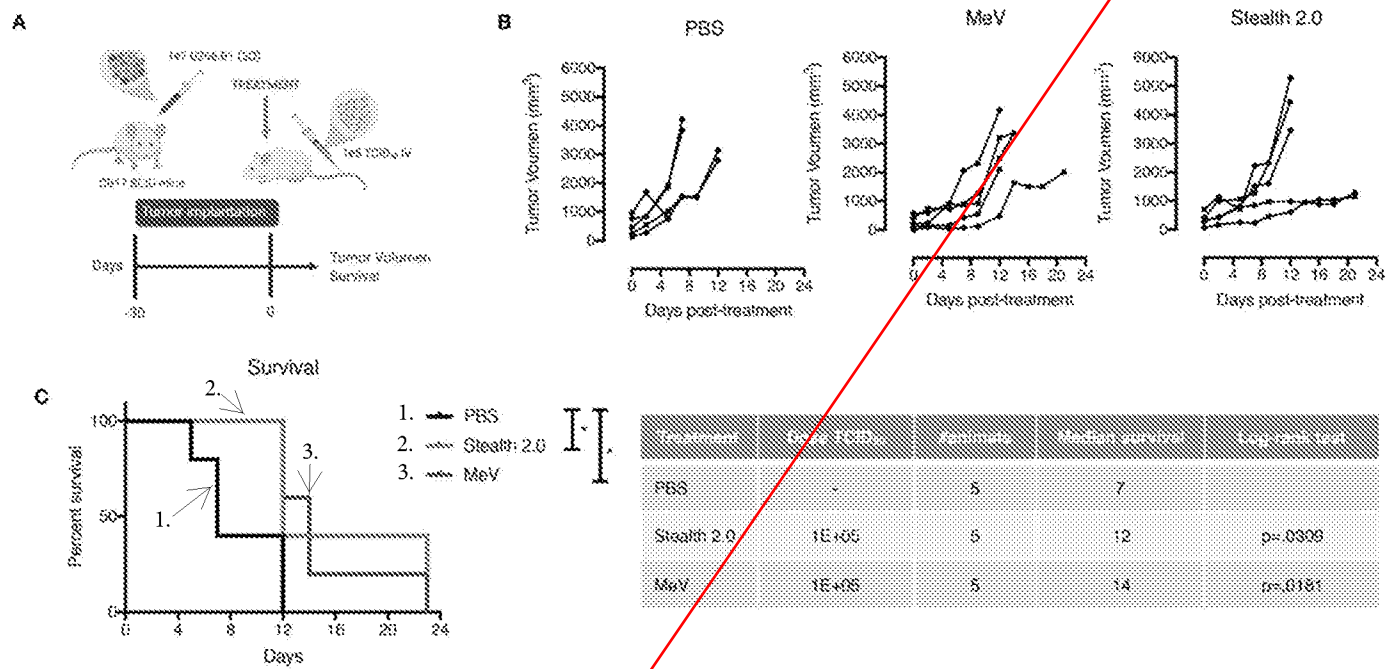


Figure 5

Virus	Construct	Titer
VSV-IFNβ-NIS	N P M IFNβ G NIS L	1.7e10 TCID50/mL (clinical stock)
VSV-CDV-FH-GFP	N P M CDV-F CDV-H GFP L	1.9e6 TCID50/mL
VSV-CDV-FHααEGFR-GFP	N P M CDV-F CDV-HααEGFR GFP L	1.0e7 TCID50/mL
VSV-CDV-FHααCD38-GFP	N P M CDV-F CDV-HααCD38 GFP L	1.0e6 TCID50/mL

Figure 6

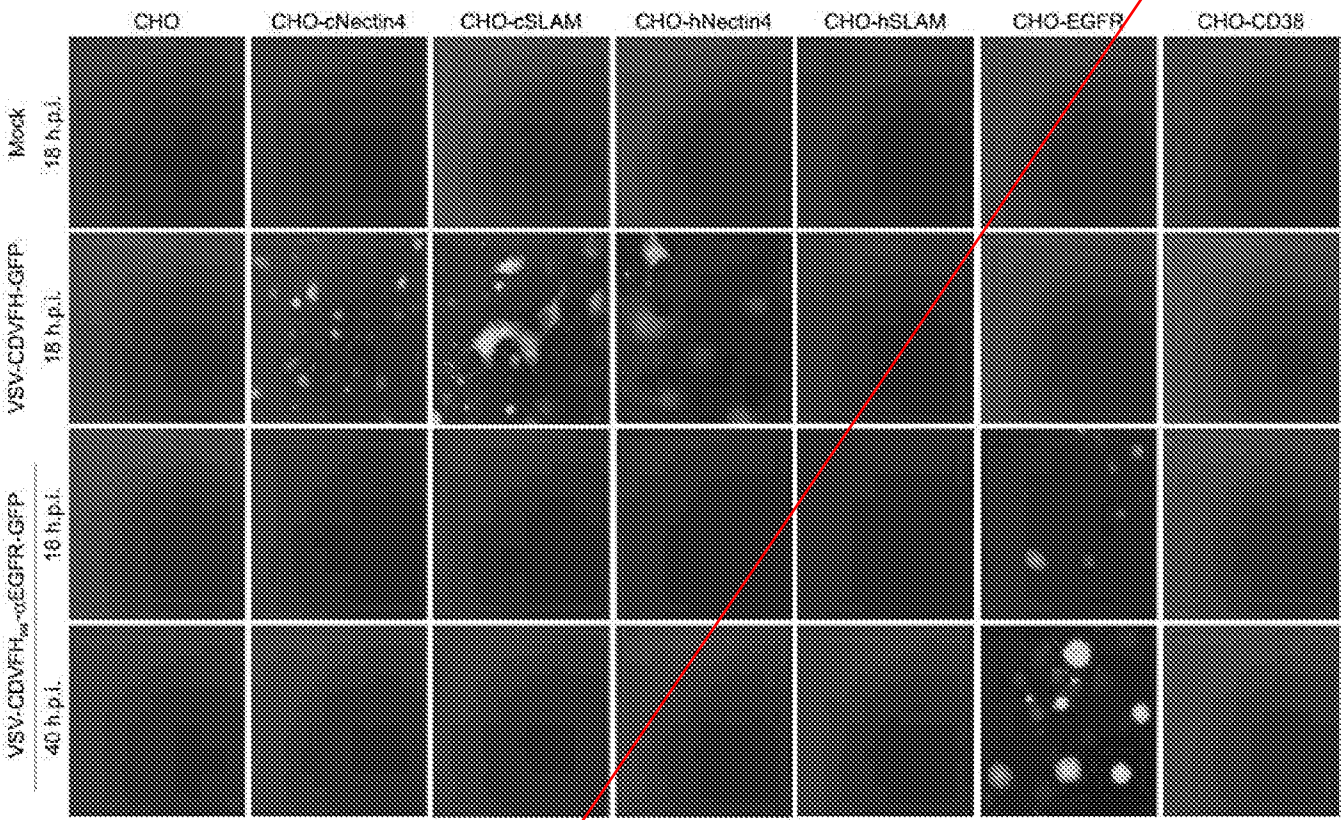


Figure 7

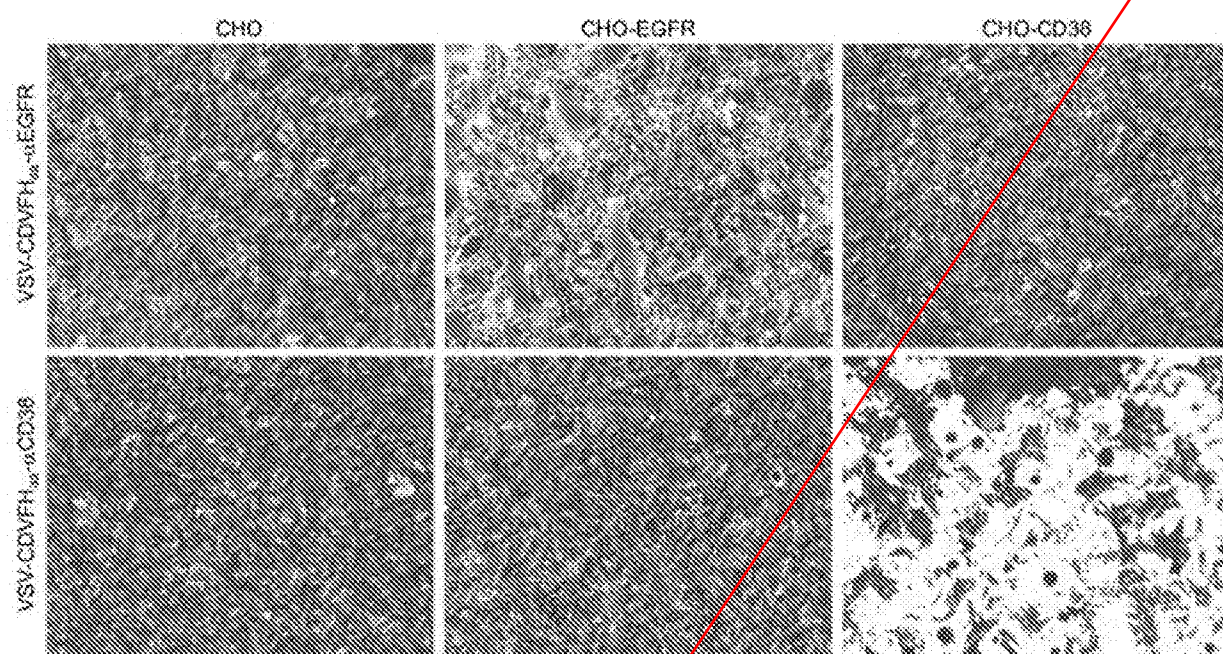
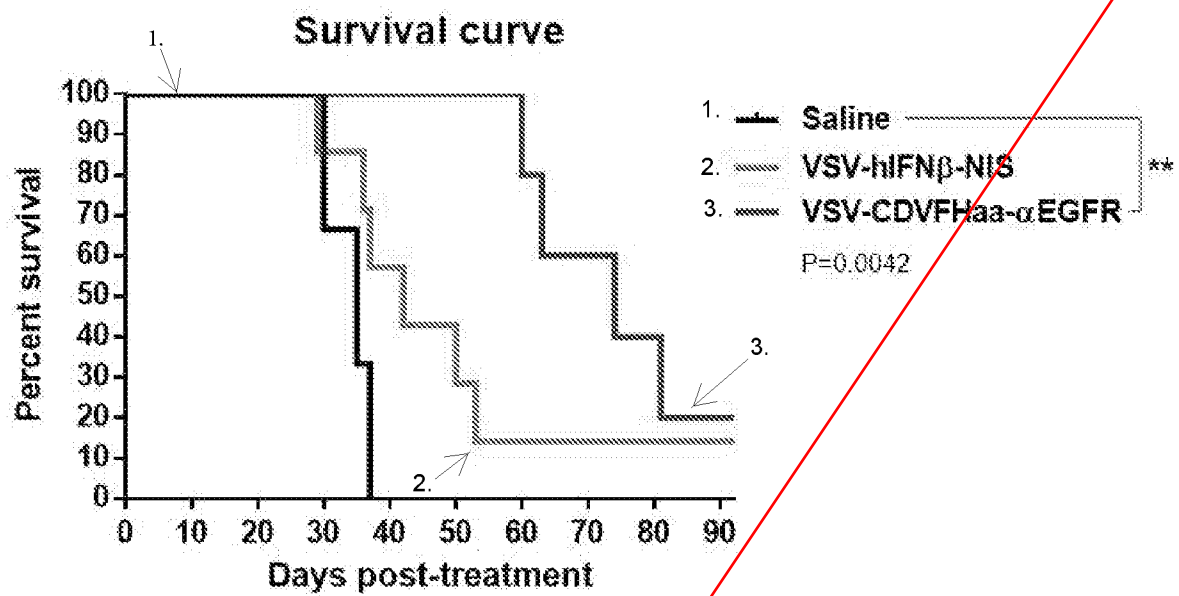


Figure 8



Treatment	Dose TCID ₅₀ /gr	#animals/gr	Median survival
Saline	-	3	35
VSV-hIFN β -NIS	1e7	7	42
VSV-CDV FHaa-IEGS- α EGFR-dG	1e7	5	74

Figure 9

ATGCTCTCCTACCAAGACAAGGTGGGTGCCTTCTACAAGGATAATGCAAGAGCTAAT
TTGTCCAAGCTGTCCTTAGTGACAGAAGAGCAAGGGGGCAGGAGACCACCTATTT
GCTGTTTGTCTTCTCATCCTACTGGTTGGAATCCTGGCCTTGCTTGCTATCACTGGA
GTTTCGATTTACCAAGGTATCAATTAGCAATATGGAATTTAGCAGATTGTTGAAAGAG
GATATGGAGAAGTCAGATGCCGTACATCACCAAGTCATAGATGTCTTGACACCGCTC
TTCAAAATTATTGGAGATGAGATTGGGTACGGTTGCCACAAAACTAAACGAGAT
CAAACAATTTATCCTTCAAAAGACTAAGTTCTTCAATCCGAACAGGGAATTCGACTT
CCGCGATCTCCACTGGTGCATTAATCCGCCTAGTAAGATCAAAGTGAATTTTACTAG
TACTGTGATACAATTGGGATCAGAAAATCCATTGCATTGGCAGCAAATCCCATCCT
TTTTTCAGCACTCTCCGGAGGCAGAGGTGACATATCCCACCATACAGATGCAGTGG
AGCTACTACTTCAGTTGGCAAATCTTTCCCCCTATCAGTATCATTATCCATGTCTTTG
ATCTCAAGAACATCAGAGATAATCAATATGCTGACCTCTATCTCAGACGGAGTGTAT
GGTAAAACTTATTTGCTAGTGCCTGATTATATTGAAGGGGAGTTCGACACGCAAAAG
ATTCGAGTCTTTGAGATAGGGTTCATCAAAAGGTGGCTGAATGACATGCCATTATTC
CAGACAACCAACTATATGATCCTCCCGGAGAATTCTAAAACCAAAGTATGTACTATA
GCAGTGGGCGAGTTGACACTGGCTTCCTTGTGTGTAGATGAGAGCACTGTATTATTA
TATCATGACAGCAATGATTCACAAGATGGTATTCTAGTAGTGACGCTGGGAATCTTT
GGGGCAACACCTATGGATCAAGTCGAAGAGGTGATACCTGTCGCTCACCCATCAGT
AGAAAAAATACATATAACAAATCACCGTGGTTTCATAAAAAGATTCCGGTAGCAACCT
GGATGGTGCCTGCATTGGTCTCTGAGAACCCTAGAGGAACAAAAAATTGTCTGGAG
TCGGCTTGTCAAAGAAAATCCTACCCTATGTGCAACCAAACATCATGGGAACCCTTT
GGAGGAGGACAGTTGCCATCTTATGGGGGGTTGACGTTACATCTAGATGCAAGCACT
GACCGTCAACTTAACATATCATTTACGTACGGTCCGGTTATACTGAATGGAAATGGT
ATGGATTATTATGAAAGCCCACTTTTGGACTCCGGATGGCTTACCATTCTCTCTAAG
AATGGAACAATTCTTGGATTGATAACAAAGCAAGTAGAGGAGACCAGTTCACTGT
GATCCCTCATGTGTTGTCATTTGGGCCAGGGAATCAAGTGGAAACTGTTATTTACC
TATTCAAACATCCCAGATTATGGATAAAGATGTCCTTACTGAGTCTAATTTAGTTGT
GTTGCCTACACAGAATTTTAGATATGTCATAGCAACATATGATATATCCCGAAACGA
TCATGCGATTGTTTATTATGTTTATGACCCAATCCGGACGATTTCTTATACGTACCCA
TTTAGACTAACTACCAAGGGTAGATCTGATTTCCCTAAGGATTGAATGTTTTGTGTGG
GATGACGACCTGTGGTGTACCAATTTTACAGGTTTCGAGGCTGACATCACCAACTCT
ACAACCAGTGTTGAGAATTTAGTCCGTATAAGATTCTCCTGTAACCGTTCAAAACCT
TGA (SEQ ID NO:1)

Figure 9 (con't)

MLSYQDKVGAFYKDNARANLSKLSLVTEEQGGRRPPYLLFVLLILLVGILALLAITGVRF
HQVSISNMEFSRLLKEDMEKSDAVHHQVIDVLTPLFKIIGDEIGLRLPQKLNEIKQFILQK
TNFFNPNREFDFRDLHWCINPPSKIKVNFTSYCDTIGIRKSIALAANPILFSALSGGRGDIFP
PYRCSGATTSVGKSFPLSVLSMSLSIRTSEIINMLTSISDGVYGKTYLLVPDYIEGEFDTQ
KIRVFEIGFIKRWLNDMPLFQTTNYMILPENSKTKVCTIAVGELTLASLCVDESTVLLYH
DSNDSQDGILVVTLGIFGATPMDQVEEVIPVAHPSVEKIHITNHRGFIKDSVATWMVPAL
VSENLEEQKNCLESACQRKSYPMCQNQTSWEPFGGGQLPSYGRLLHLDASTDRLNLSF
TYGPVILNGNGMDYYESPLLD SGWLTIPPKNGTILGLINKASRGDQFTVIPHVLSFAPRES
SGNCYLP IQTSQIMDKDVLTESNLVVLPTQNFRYVIATYDISRNDHAIVYYVYDPIRTISY
TYPFRLTTKGRSDFLRIECFVWDDDLWCHQFYRFEADITNSTTSVENLVRIRFSCNRSKP
(SEQ ID NO:2)

Figure 10

ATGCACAAGGAAATCCCCGAAAAATCCAGAACCCGAACACACACCCCAACAAGACCT
CCCCCAACAAAAAAGCACCGAATACACCGAGATCAAGACCTCCCGAGCACGACACG
GCATAACGCCAGCTCAGCGATCCACGCACTATGGTCCTCGAACATTGGACAGGCTC
GTCTGCTACATTATGAACAGAGCCATGTCTTGCAAGCAAGCCAGCTACAGATCGGAT
AACATCCCAGCTCACGGAGACCACGAGGGTGTGTCCATCACACACCAGAGAGTGT
CTCCCAAGGAGCGAGATCCCAGCTCAAGAGGCGGACTTCCAATGCAATCAACTCAG
GATTTCAGTACATCTGGTTAGTCCTGTGGTGCATCGGAATAGCCAGTCTCTTTCTTTG
TTCTAAGGCTCAGATACATTGGAATAATTTATCAACTATTGGGATCATCGGGACTGA
CAGTGTCCATTATAAGATCATGACTAGGCCAGCCACCAGTACTTGGTCATAAACT
AATGCCTAATGTTTCACTCATAGATAATTGTACCAAAGCAGAATTAGGTGAGTATGA
GAAATTATTAAATTCAGTCCTCGAACCAATCAACCAAGCTTTGACTCTAATGACCAA
GAATGTGAAGCCTCTACAGTCAGTAGGGTCAGGTAGGAGACAGAGGCGTTTTGCAG
GAGTGGTGTCTGCAGGTGCAGCTTTAGGAGTGGCCACTGCTGCACAAATCACTGCAG
GGATAGCTTTACATCAATCCAACCTCAATGCTCAAGCAATCCAATCTCTGAGAACTA
GCCTTGAACAGTCCAACAAGGCTATAGAAGAAATTAAGGAGGCAACCCAGGAAACC
GTCATTGCCGTTCAAGGAGTCCAGGATTACGTCAATAATGAACTCGTCCCTGCTATA
CAACATATGTCGTGTGAATTAGTTGGGCAGAGATTAGGGTTAAAATTGCTTAGGTAT
TATACCGAGTTGTTGTCAATATTTGGCCCGAGTTTACGTGATCCTATTTTCAGCCGAGA
TATCAATTCAAGCACTGAGTTATGCTCTTGGGGGAGAAATTCATAAGATACTTGAGA
CGTTGGGGTATTCTGGAAATGATATGATTGCAATTTTGGAGAGTCGGGGGATAAAA
ACAAGAATAACTCATGTTGATCTCCCCGGGAAATTTATCATCTTAAGTATCTCATA
CCAACCTTTATCAGAAGTCAAGGGGGTTATAGTCCACAGACTGGAAGCAGTTTCTTAT
AACATAGGGTCACAAGAGTGGTACCACTGTCCCGAGGTATGTTGCAACTAATGG
TTACTTAATATCCAATTTTCGATGAGTCATCCTGTGTATTTCGTCTCAGAATCAGCCATT
TGTAAGCCAGAACTCCCTATACCCCATGAGCCCACTTCTACAACAATGCATTAGGGGC
GACACTTCATCTTGTGCTCGGACCTTGGTGTCTGGAACCATGGGCAATAAATTTATT
CTGTCAAAAGGCAATATCATCGCAAATTTGTGCTTCTATACTATGTAAGTGTTATAGC
ACAAGCACAAATTATCAATCAGAGTCCTGATAAGTTGCTGACCTTTATTGCCTCCGAT
ACATGCCCCTAGTTGAAATAGATGGTGTAACCATCCAGGTTGGAGGCAGGCAATA
CCCTGATATGGTATACGAAAGCAAAGTTGCCCTAGGCCCTGCTATATCACTTGAGAG
GCTAGATGTAGGTACAAATTTAGGGAACGCCCTTAAGAAACTGGATGATGCTAAGG
TACTGATAGACTCATCTAATCAGATCCTTGAGACGGTTAGGCGCTCTTCCTTTAATTT
TGGCAGTCTCCTCAGCGTTCCTATATTAAGCTGTGCAGCCCTGGCTTTGTTATTGCTG
ATTTACTGCTGTAAAAGACGCTATCAACAGACACTCAAGCGGAATACTAAGGTCGA
TCCGACATTTAAACCTGATCTGACTGGGACTTCTAAATCCTATGTAAGATCACTCTG
A (SEQ ID NO:3)

Figure 10 (con't)

MHKEIPEKSRTRTHTQQDLPQQKSTEYTEIKTSRARHGITPAQRSTHYGPRTLDRIVCYI
MNRAMSCCKQASYRSDNIPAHGDHEGVVHHTPESVSQGARSQKRRTSNAINSGFQYIW
LVLWCIGIASLFLCSKAQIHWNNLSTIGIIGTDSVHYKIMTRPSHQYLVIKLMPNVSLIDN
CTKAELGEYEKLLNSVLEPINQALTLMTKNVKPLQSVGSGRRQRRFAGVVLAGAALGV
ATAAQITAGIALHQSNLNAQAIQSLRTSLEQSNKAIEEIREATQETVIAVQGVQDYVNNE
LVPAIQHMSCELVGQRLGLKLLRYYTELLSIFGPSLRDPISAEISIQALSYALGGEIHKILET
LGYSGNDMIAILES RGIKTRITHVDLP GKFIILSISYPTLSEVKG VIVHRLEAVSYNIGSQE
WYTTVPRYVATNGYLISNFDDESSCVFVSESAICSQNSLYPMSPLLQOCIRGDTSSCARTL
VSGTMGNKFILSKGNIIANCASILCKCYSTSTIINQSPDKLLTFIASDTCPLVEIDGVTIQVG
GRQYPDMVYESKVALGPAISLERLDVGTNLGNALKKLDDAKVLIDSSNQILETVRRSSF
NFGSLLSVPILSCAALALLLIYCKRRYQQTLKRNTKVDPTFKPDLTGTSSKSYVRSL
(SEQ ID NO:4)

Figure 11.

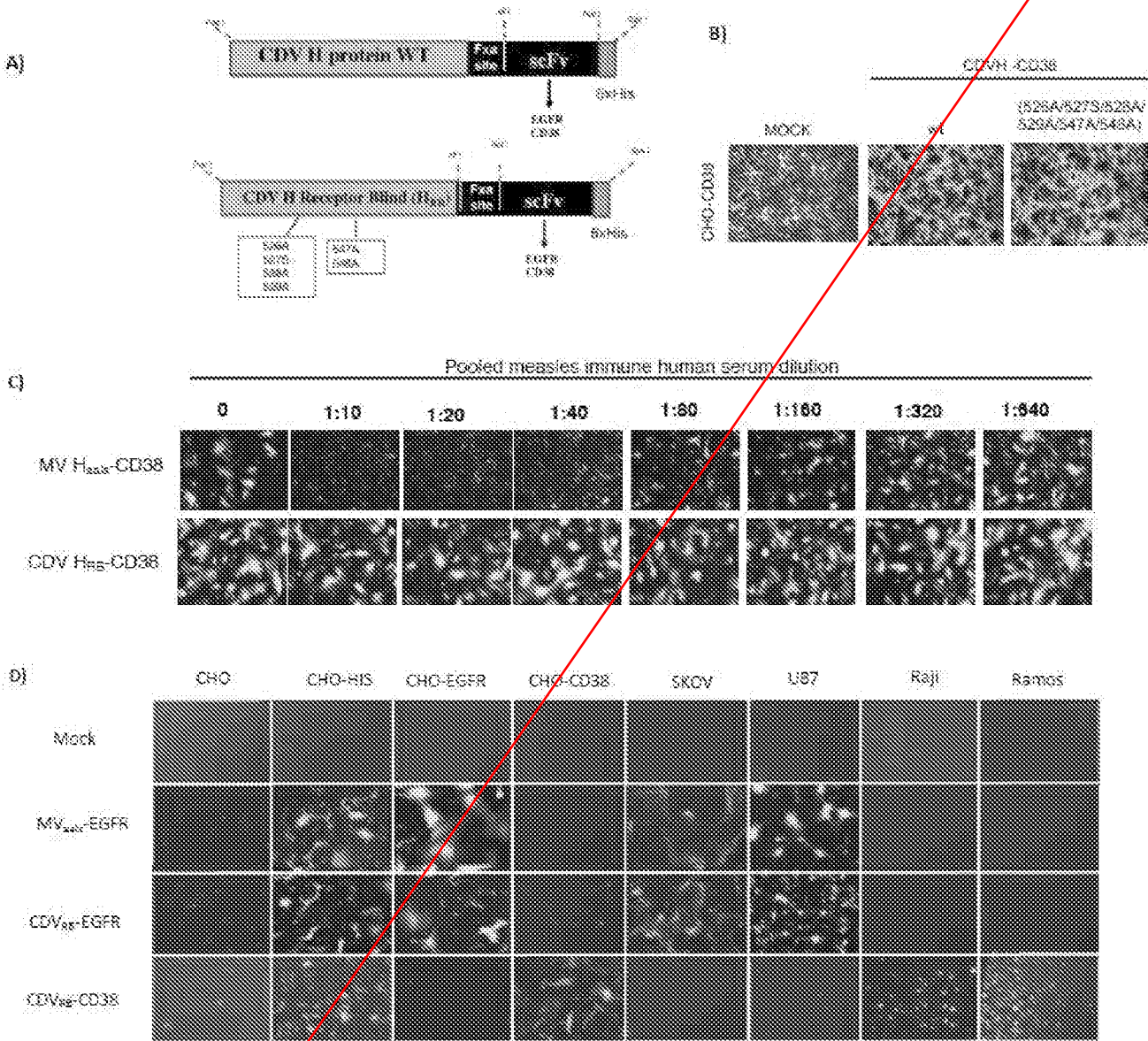
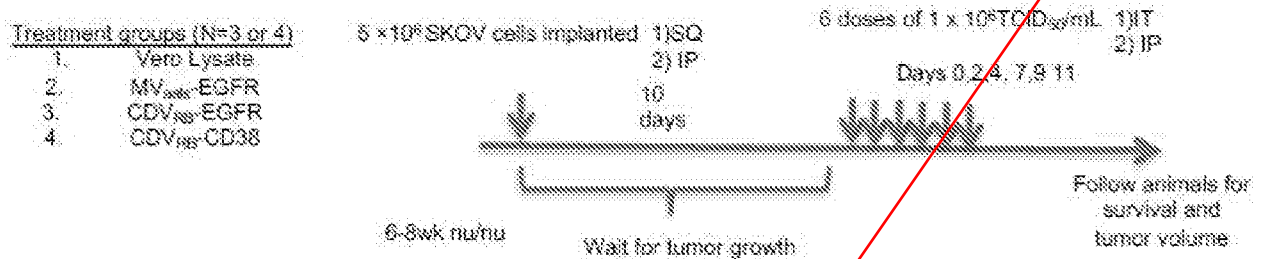


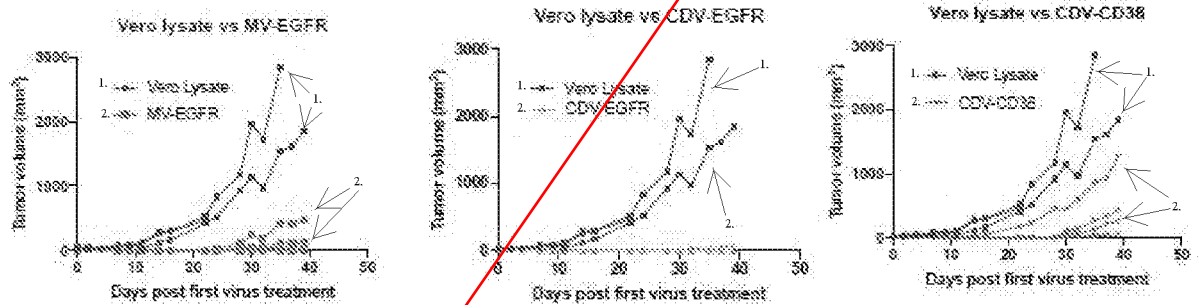
Figure 11 (con't)

E)



F)

1) SQ implantation+IT treatment



2) IP implantation+IP treatment

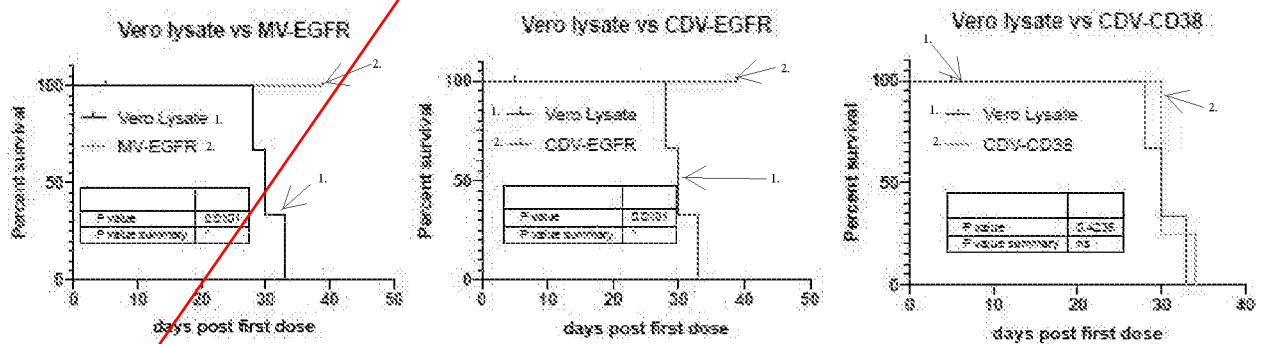


Figure 12

	10	20	30	40	50	60	70	80
AF378705.1_America1	MLSYQDKVGAFYKDNARANSTKLSLVTEEHGGRPPYLLFVLLILLVIGILALLAITGVRFHQVSTSNMEEFSRLLEDMEK							
Z35493.1_America1	A.....				V.....			
AF259552.1_America1	PS.....				S.....	K.....		
DQ903854.1_America1	..P.....		G.....				I.....	
AY548109.1_America1	PS.....				S.....	K.....		
HM046486.1_America1	S..P.....							
AY542312.2_America1	PS.....				S.....	K.....		
AF112189.1_America2	S.....	S.....	Q.....		M.....			
Z47764.1_America2	S.....		DQ.....		M.....			
Z47765.1_America2	S..S.....		Q.....		M.....			
Z47763.1_America2	S.....		Q.....		M.....			
Z54166.1_America2	S.....		Q.....		M.....			
Z54156.1_America2	SR.....		DQ.....		M.....			
KT266736.1_America3	S.....		Q.....		R.....		V.....	
AY964110.1_America3	S.....		Q.....				V.....	
MF953474.1_America3	S.....		Q.....			T.....	V.....	
MF953470.1_America3	S..Y.....		Q.....			T.....	V.....	
JN836734.1_America3	S.....		Q.....				V.....	
MF953472.1_America3	S.....		Q.....			T.....	V.....	
KJ747371.1_America4	...R...D.....	LS.....	Q.....		M.....			L.....
JF283477.1_America5	SR.....		DQ.....		M.....			
Z54156.1_America5	SR.....		DQ.....		M.....			
MK473366.1_America5	SR.....		Q..K.....		M.....			
MK473365.1_America5	SR.....		Q.....		M.....			
MK487379.1_America5	SR.....		Q.....		M.....			
AF164967.1_A75/17	S.....	S.....	Q.....		M.....			
Z47764.1	S.....		DQ.....		M.....			
KX024709.1_ArticLike	LS.....		Q.....		V.....		IN.....	
Z47760.1_ArticLike	LS.....		Q.....					
KC966928.1_ArticLike	LS.....		Q.....				I.....	
AF172411.1_ArticLike	LS.....		Q.....				I.....	
AY964108.1_ArticLike	LS.....		GQ.....				I.....	
DQ226087.1_ArticLike	LS.....		Q.....				I.....	
MH430949.1_ArticLike	LS.....		Q.....					
22458.16	LS.....		Q.....				I.....	
GU266280.1_RockbornLike	S.....		Q.....		M.....			
FJ461702.1_RockbornLike	S.....		Q.....		M.....			
AY964114.1_RockbornLike	S.....		Q.....		M.....			
GU810819.1_RockbornLike	S.....		Q.....		M.....			
Z47759.1_EuropeanWildlife	S..S.....		Q.....		M.....			
GQ214374.2_EuropeanWildlife	...H.....	S.....	Q.....	F.....	V.....	M.....		
JN153023.1_EuropeanWildlife	S.....	S.....	Q.....	F.....	V.....	M.....		
DQ889187.1_EuropeanWildlife	S.....	S.....	S.....	I.....	M.....	A.....		
FJ392651.1_EuropeanWildlife	S.....	S.....	Q.....		MT.....			
DQ889188.1_EuropeanWildlife	S.....	S.....	S.....	I.....	M.....	A.....		
JN153020.1_EuropeanWildlife	S.....	S.....	Q.....	F.....	V.....	M.....		
AY386316.1_5804P	S.....	S.....	Q.....		MT.....			
AY386315.1_Europe1_SA1	S.....	S.....	Q.....		MT.....			
JN153024.1_EuropeSA1	S.....	S.....	Q.....		MT.....			
FJ416338.1_EuropeSA1	S.....	S.....	Q.....		MT.....			
GU001863.1_EuropeSA1	S.....	S.....	Q.....	L.....	MT.....	H.....		
HM120874.1_EuropeSA1	S.....	S.....	Q.....		MT.....			
X85000.1_EuropeSA1	S.....	S.....	Q.....		MT.....			
KJ865300.1_SA2	S.....	S.....	Q.....		MT.....			
FJ392652.1_SA2	S.....	S.....	Q.....		MT.....			
JN215477.1_SA2	S.....	S.....	Q.....		MT.....			
JN215473.1_SA2	S.....	S.....	Q.....		MT.....			
EU098102.1_SA2	S.....	S.....	Q.....		MT.....			
MH362795.1_SA2	S.....	S.....	Q.....		MT.....			
JN215476.1_SA2	S.....	S.....	Q.....		MT.....			
KF835412.1_SA3	SR.....		Q.....	I.....	M.....			
KF835425.1_SA3	SR.....		Q.....	I.....	M.....			
KF835414.1_SA3	SR.....		Q.....	I.....	M.....			
KF835413.1_SA3	S.....	S.....	Q.....	I.....	M.....			
KF835422.1_SA3	S.....	S.....	Q..V.....	I.....	M.....			
KF835411.1_SA3	SR.....		Q.....	I.....	M.....			
FJ461693.1_Africal	S.....	S.....	Q..I.....		V.....			
FJ461704.1_Africal	S.....	S.....	Q..I.....		V.....			
FJ461722.1_Africal	S.....	S.....	Q..I.....		V.....			
FJ461716.1_Africal	S.....	S.....	Q..I.....		V.....			
KY971528.1_Africal	S.....	S.....	Q..I.....		V.....		N.....	
FJ461719.1_Africal	S.....	S.....	Q..I.....		V.....			
FJ461696.1_Africal	S.....	S.....	Q..I.....		V.....			

Figure 12 (cont.)

KY971532.1_Africa1	S.....Q.I.....V.....
JN812976.1_Africa2	..H.....S...M...R.D.....
KU578254.1_Africa2	S...M...Q.D.....
KC916716.1_Africa2	..H.....S...M...R.D.....
KU578256.1_Africa2	..H.....S...M...R.D.....
KU578255.1_Africa2	..H.....S...M...R.D.....
KU578253.1_Africa2	S...M...Q.D.....
KU578254.1_Africa2	S...M...Q.D.....
KC916714.1_Africa2	S...M...Q.D.....
AB025271.2_Asia1	P.....Q.....I.....
D85755.1_Asia1	S.....Q.....I.....
AB687720.2_Asia1	S.F...Q.....I.....
EU564813.1_Asia1	S.....Q.....I.....N.....
JQ732176.1_Asia1	S.....Q.....I.....
EU296484.1_Asia1	S.....Q.....I.....
KJ994343.1_Asia1	..P.....S.....Q.....I...T.....
MH337872.1_Asia1	S.....Q.....I...T.....
EU716073.1_Asia2	S.....Q.....A...R...V.G...D.L...
AB475099.1_Asia2	S.....Q.....A...R...V.G...D.L...
FJ868161.1_Asia2	S.....Q.....A...R...V.G...D.L...
JQ732170.1_Asia2	S.....Q.....A...R...V.G...D.L...
AY297453.1_Asia2	S.....Q.....A...R...V.G...D.L...
AB025270.1_Asia2	S.....Q.....A...R...V.G...D.L...
AB212730.1_Asia2	S.....Q.....A...R...V.G...D.L...
EU743934.1_Asia3	E...M...S...QRS.....A...R...V.G...D.L...
EU743935.1_Asia3	E...M...S...QRS.....A...R...V.G...D.L...
AY297454.1	S.....Q.....A...R...V.G...D.L...
KJ489381.1_Asia4	S.P...Q.....M.....
KJ437596.1_Asia4	K...S...Q.....M.....
MH496773.1_Asia4	.F.....S...Q.....M.....
MH496772.1_Asia4	.F.....S...Q.....M.....
MH496777.1_Asia4	.F.....S...Q.....M.....
MH496778.1_Asia4	.F.....S...Q.....M.....
MH496774.1_Asia4	.F.....S...Q.....M.....
MF964178.1_Asia5	S.....Q.....I.....
MF964179.1_Asia5	S.....Q.....I.....
MF964182.1_Asia5	V.S...Q.....I.....
MF964183.1_Asia5	T...S...Q.....I.....
MF964180.1_Asia5	S.....Q.....I.....
MF964187.1_Asia5	S.....Q.....I.....
MF964181.1_Asia5	S.....Q.....I.....
MF964185.1_Asia5	S.....Q.R.....I.....
MF964186.1_Asia5	S.....Q.....I.....

Figure 12 (cont.)

	90	100	110	120	130	140	150	160
AF378705.1_America1	SEAVHHQVIDVLTPLFKIIGDEIGLRPLQKLNEIKQFILOKTNFFNPNREFDFRDLHWCINPPSKVKVNFITNCESIGIR							
Z35493.1_America1	S.....							
AF259552.1_America1	T.....							
DQ903854.1_America1	DT.....							
AY548109.1_America1	T.....							
HM046486.1_America1	DT.....							
AY542312.2_America1	I.....							
AF112189.1_America2	I.....							
Z47764.1_America2	Y.....							
Z47765.1_America2	V.....							
Z47763.1_America2	P.....							
Z54166.1_America2	V.....							
Z54156.1_America2	R.....							
KT266736.1_America3	V.....							
AY964110.1_America3	I.....							
MF953474.1_America3	I.....							
MF953470.1_America3	I.....							
JN836734.1_America3	I.....							
MF953472.1_America3	I.....							
KJ747371.1_America4	I.....							
KJ747372.1_America4	I.....							
Z54156.1_America5	I.....							
MK473366.1_America5	I.....							
MK473365.1_America5	I.....							
MK487379.1_America5	I.....							
AF164967.1_A75/17	I.....							
Z47764.1	I.....							
KX024709.1_ArticLike	.D.....I.....S.....DT.....							
Z47760.1_ArticLike	.D.....I.....DT.....							
KC966928.1_ArticLike	.D.....I.....S.....DT.....							
AF172411.1_ArticLike	.D.....S.....K.....DT.....							
AY964108.1_ArticLike	.D.....I.....S.....DT.....							
DQ226087.1_ArticLike	.D.....I.....S.....DT.....							
MH430949.1_ArticLike	.D.....I.....DT.....E.....							
22458.16	.D.....I.....S.....DT.....							
GU266280.1_RockbornLike	I.....L.....DT.....L.....							
FJ461702.1_RockbornLike	I.....L.....DT.....L.....							
AY964114.1_RockbornLike	I.....L.....DT.....L.....							
GU810819.1_RockbornLike	I.....L.....DT.....L.....							
Z47759.1_EuropeanWildlife	I.....DT.....							
GQ214374.2_EuropeanWildlife	S.....I.....DT.....							
JN153023.1_EuropeanWildlife	.D.....I.....DT.....							
DQ889187.1_EuropeanWildlife	K.....I.....DT.....							
FJ392651.1_EuropeanWildlife	M.....V.....I.....S.....DT.....							
DQ889188.1_EuropeanWildlife	K.....I.....DT.....							
JN153020.1_EuropeanWildlife	.D.....Y.....R.....I.....DT.....							
AY386316.1_5804P	V.....Q.....I.....DT.....K.....							
AY386315.1_Europe1_SA1	V.....I.....DT.....K.....							
JN153024.1_EuropeSA1	V.....I.....DT.....							
FJ416338.1_EuropeSA1	V.....I.....DT.....							
GU001863.1_EuropeSA1	V.....I.....DT.....							
HM120874.1_EuropeSA1	V.....I.....DT.....							
X85000.1_EuropeSA1	V.....I.....DT.....K.....							
KJ865300.1_SA2	V.....I.....DT.....							
FJ392652.1_SA2	V.....I.....DT.....E.....							
JN215477.1_SA2	V.....DT.....							
JN215473.1_SA2	V.....DT.....							
EU098102.1_SA2	V.....I.....DT.....							
MH362795.1_SA2	V.....I.....DT.....							
JN215476.1_SA2	V.....DT.....							
KF835412.1_SA3	S.....I.....DT.....							
KF835425.1_SA3	V.....S.....I.....DT.....							
KF835414.1_SA3	V.....S.....I.....DT.....							
KF835413.1_SA3	S.....I.....DT.....							
KF835422.1_SA3	S.....I.....DT.....							
KF835411.1_SA3	V.....S.....I.....DT.....							
FJ461693.1_Africal	S.....I.....S.....DT.....K.....							
FJ461704.1_Africal	S.....I.....S.....DT.....K.....							
FJ461722.1_Africal	S.....I.....S.....DT.....K.....							
FJ461716.1_Africal	S.....I.....S.....DT.....K.....							
KY971528.1_Africal	S.....I.....S.....DT.....K.....							
FJ461719.1_Africal	S.....I.....S.....DT.....K.....							
FJ461696.1_Africal	S.....I.....S.....DT.....							
KY971532.1_Africal	K.....S.....V.....I.....S.....DT.....							

Figure 12 (cont.)

JN812976.1_Africa2	I.....DT....
KU578254.1_Africa2	I.....DT...K
KC916716.1_Africa2	I.....DT....
KU578256.1_Africa2	I.....DT...K
KU578255.1_Africa2	Y.....I.....DT...K
KU578253.1_Africa2	I.....DT...K
KU578254.1_Africa2	I.....DT...K
KC916714.1_Africa2	I.....DT...K
AB025271.2_Asia1	I.....DTV.VK
D85755.1_Asia1	I.....DTV.VK
AB687720.2_Asia1	I.....DTV.VK
EU564813.1_Asia1	I.....DTV.VK
JQ732176.1_Asia1	I.....DTV.VK
EU296484.1_Asia1	I.....DTV.VK
KJ994343.1_Asia1	I.....DTV.VK
MH337872.1_Asia1	I.....DTV.VK
EU716073.1_Asia2	M.....I.....DT...VK
AB475099.1_Asia2	M.....I.....DA...V.
FJ868161.1_Asia2	M.....I.....DTV.VK
JQ732170.1_Asia2	I.....DT....
AY297453.1_Asia2	M.....I.....DA...V.
AB025270.1_Asia2	M.....I.....DA...V.
AB212730.1_Asia2	M.....I.....DA...V.
EU743934.1_Asia3	M.....Q...G.....S...NF.....I.....DA...V.
EU743935.1_Asia3	M.....Q...YG.....S...NF.....I...N...DA...V.
AY297454.1	M.....I.....DA...V.
KJ489381.1_Asia4	I.....DT....
KJ437596.1_Asia4	I.....DT....
MH496773.1_Asia4	I.....DT....
MH496772.1_Asia4	I.....DT....
MH496777.1_Asia4	I.....DT....
MH496778.1_Asia4	I.....DT....
MH496774.1_Asia4	I...T...DT....
MF964178.1_Asia5	V.....I.....DI...K
MF964179.1_Asia5	V.....I.....DI...K
MF964182.1_Asia5	.K.....V.....I.....DI...K
MF964183.1_Asia5	V.....I.....DI...K
MF964180.1_Asia5	V.....H...I.....DI...K
MF964187.1_Asia5	V.....I.....DI...K
MF964181.1_Asia5	V.....I.....DI...K
MF964185.1_Asia5	I.....DM...K
MF964186.1_Asia5	I.....DI...K

	170	180	190	200	210	220	230	240				
AF378705.1_America1	.....|.....|.....|.....|.....|.....|.....|.....|.....|	.....|.....|.....|.....|.....|.....|.....|.....|.....|	.....|.....|.....|.....|.....|.....|.....|.....|.....|	.....|.....|.....|.....|.....|.....|.....|.....|.....|	.....|.....|.....|.....|.....|.....|.....|.....|.....|	.....|.....|.....|.....|.....|.....|.....|.....|.....|	.....|.....|.....|.....|.....|.....|.....|.....|.....|	.....|.....|.....|.....|.....|.....|.....|.....|.....|				
Z35493.1_America1	KAIASAA	NPILLS	SALSGGRSD	IFPPHRC	SGATT	SVGKV	FPLSVLS	MSLSLISRT	SEIINMLTAIS	DGVYGK	TLLLV	DDIE
AF259552.1_America1		P	.....	.....	.....	.....	.....	.....	.....	.....	.....	A
DQ903854.1_America1			Y	.....	.....	.....	V	.....	.....	.....	.....	.....
AY548109.1_America1		S	.....	Y	.....	.....	V	.....	.....	.....	.....	.....
HM046486.1_America1			Y	R	.....	.....	.....	T	.....	.....	.....	.....
AY542312.2_America1		S	.....	Y	.....	.....	V	.....	.....	.....	.....	.....
AF112189.1_America2		S	G	.....	Y	.....	R	.....	.....	.....	H	Y
Z47764.1_America2		S	.....	Y	.....	R	S	.....	.....	.....	.....	Y
Z47765.1_America2		S	.....	Y	.....	I	R	.....	M	.....	N	M
Z47763.1_America2		S	.....	Y	.....	.....	R	.....	.....	.....	.....	Y
Z54166.1_America2		S	.....	HT	G	.....	Y	.....	R	.....	.....	Y
Z54156.1_America2		S	.....	RS	G	.....	Y	.....	S	.....	.....	YL
KT266736.1_America3		S	.....	G	.....	Y	A	.....	R	.....	K	N
AY964110.1_America3		S	.....	G	.....	Y	A	.....	R	.....	K	N
MF953474.1_America3		S	.....	G	.....	Y	A	.....	R	.....	T	K
MF953470.1_America3		S	.....	G	.....	Y	A	.....	R	.....	T	K
JN836734.1_America3		S	.....	G	.....	Y	A	.....	R	.....	K	N
MF953472.1_America3		S	.....	G	.....	Y	A	.....	R	.....	T	K
KJ747371.1_America4		S	.....	G	.....	Y	N	I	.....	I	.....	M
KJ747372.1_America4		S	.....	G	.....	Y	N	I	.....	I	.....	M
JF283477.1_America5		S	.....	G	.....	SY	.....	.....	R	.....	.....	FL
Z54156.1_America5		S	.....	RS	G	.....	Y	.....	S	.....	.....	YL
MK473366.1_America5		S	.....	G	V	.....	SY	.....	R	.....	.....	YL
MK473365.1_America5		S	.....	G	V	.....	SY	.....	R	.....	.....	YL
MK487379.1_America5		S	.....	G	V	.....	SY	.....	R	.....	.....	YL
AF164967.1_A75/17		S	.....	G	.....	Y	.....	.....	B	.....	.....	Y
Z47764.1		S	.....	.....	Y	.....	.....	R	S	.....	.....	Y
KX024709.1_ArticLike		S	L	.....	G	.....	Y	.....	I	S	.....	S
Z47760.1_ArticLike		S	L	.....	.....	Y	.....	.....	S	.....	A	S
KC966928.1_ArticLike		S	L	.....	G	.....	Y	.....	I	S	.....	S
AF172411.1_ArticLike		S	L	.....	.....	Y	.....	.....	S	.....	.....	S
AY964108.1_ArticLike		S	L	.....	V	.....	G	.....	Y	.....	.....	S
DQ226087.1_ArticLike		S	L	.....	.....	G	.....	Y	.....	S	.....	S
MH430949.1_ArticLike		S	L	.....	.....	G	.....	Y	V	.....	ES	S
22458.16		S	L	.....	F	.....	G	.....	Y	.....	S	S
GU266280.1_RockbornLike		S	.....	.....	R	G	.....	Y	.....	RF	.....	Y
FJ461702.1_RockbornLike		S	.....	.....	R	G	.....	Y	.....	RF	.....	Y
AY964114.1_RockbornLike		S	.....	.....	R	G	.....	Y	.....	RF	.....	Y
GU810819.1_RockbornLike		S	.....	.....	R	G	.....	Y	.....	RF	.....	Y
Z47759.1_EuropeanWildlife		S	.....	.....	.....	Y	.....	A	.....	R	.....	Y
GQ214374.2_EuropeanWildlife		S	.....	.....	G	.....	Y	N	A	A	R	.....
JN153023.1_EuropeanWildlife		S	.....	.....	G	.....	Y	N	A	A	R	.....
DQ889187.1_EuropeanWildlife		S	L	.....								

Figure 12 (cont.)

KY971532.1_Africa1	.S.....K...S.....G.....Y.....I.R.....Y..
JN812976.1_Africa2	.S.....D.G.....Y.....R.....A.....Y..
KU578254.1_Africa2	.S.....G.....Y.....R.....K.A.....Y..
KC916716.1_Africa2	.S.....D.G.....Y.....R.....A.....Y..
KU578256.1_Africa2	.S.....G.....Y.....R.....A.....Y..
KU578255.1_Africa2	.S.....G.....Y.....R.....A.....Y..
KU578253.1_Africa2	.S.....G.....Y.....R.....K.A.....Y..
KU578254.1_Africa2	.S.....G.....Y.....R.....K.A.....Y..
KC916714.1_Africa2	.S.....G.....Y.....R.....K.A.....Y..
AB025271.2_Asia1	.S.....I.....A.G.....Y.....R.....Y..
D85755.1_Asia1	.S.....I.....A.G.....Y.....R.....Y..
AB687720.2_Asia1	.S.....I.....A.G.....Y.....R.....Y..
EU564813.1_Asia1	.S.....I.....A.G.....Y.....R.....Y.G
JQ732176.1_Asia1	.S.....IS.....A.G.....Y.....R.....Y..
EU296484.1_Asia1	.S.....I.....A.G.....Y.....R.....M.....Y..
KJ994343.1_Asia1	.S.....I.....A.G.....Y.....R.S.....Y..
MH337872.1_Asia1	.S.....I.....A.G.....Y.....R.S.....Y..
EU716073.1_Asia2	.S.....I.....V.G.....Y.....R.....K.....Y..
AB475099.1_Asia2	.S.....G.....Y.....R.....K.....S.....Y..
FJ868161.1_Asia2	.S.....I.....A.G.....Y.....R.....Y..
JQ732170.1_Asia2	.S.....G.....Y.....R.....K.....Y..
AY297453.1_Asia2	.S.....G.....Y.....R.....K.....S.....Y..
AB025270.1_Asia2	.S.....G.....Y.....R.....K.....Y..
AB212730.1_Asia2	.S.....G.....Y.....R.....K.....S.....Y..
EU743934.1_Asia3	.S.....I.F.C.G.....Y.....I.....R.I.....T.....S.....L.....Y..
EU743935.1_Asia3	.S.....H.....I.F.C.G.....Y.....I.....R.I.....T.....S.....L.....Y..
AY297454.1	.S.....G.....Y.....R.....K.....S.....Y..
KJ489381.1_Asia4	.S.....G.....Y.....RI.....K.....S.I.....Y..
KJ437596.1_Asia4	.S.....G.....Y.....R.....K.....M.....Y.D
MH496773.1_Asia4	.S.....G.....Y.....RI.....K.....S.I.....Y..
MH496772.1_Asia4	.S.....G.....Y.....RI.....K.....S.I.....Y..
MH496777.1_Asia4	.S.....S.....G.....YS.....RI.....K.....S.I.....Y..
MH496778.1_Asia4	.S.....D.....Y.....I.RI.....K.....S.I.....Y..
MH496774.1_Asia4	.S.....S.....G.....Y.....RI.....K.....S.I.....Y..
MF964178.1_Asia5	ES.....E.G.....Y.....V.....N.....Y..
MF964179.1_Asia5	ES.....G.....Y.....V.....Y..
MF964182.1_Asia5	ES.....E.G.....Y.....V.....N.....Y..
MF964183.1_Asia5	ES.....G.....Y.....V.....Y..
MF964180.1_Asia5	ES.....E.G.....Y.....V.....I.....Y..
MF964187.1_Asia5	ES.....G.....Y.....V.....Y..
MF964181.1_Asia5	ES.....G.....Y.....V.....Y..
MF964185.1_Asia5	ES.....S.....G.....Y.....R.....Y..
MF964186.1_Asia5	ES.....G.....Y.N.....R.....Y..

Figure 12 (cont.)

	250	260	270	280	290	300	310	320
AF378705.1_America1	REFDTQ	QEI	R	V	F	E	I	G
Z35493.1_America1	F	I	K	R	W	L	N	D
AF259552.1_America1	M	P	L	L	Q	T	T	N
DQ903854.1_America1	Y	M	V	L	P	E	N	S
AY548109.1_America1	K	A	K	V	C	T	I	A
HM046486.1_America1	V	G	E	L	T	L	A	S
AY542312.2_America1	L	C	V	E	E	S	T	V
AF112189.1_America2	L	L	L	L	L	L	L	L
Z47764.1_America2	S	S	S	S	S	S	S	S
Z47765.1_America2	Q	D	G	I	L	V	V	T
Z47763.1_America2								
Z54166.1_America2								
Z54156.1_America2								
KT266736.1_America3								
AY964110.1_America3								
MF953474.1_America3								
MF953470.1_America3								
JN836734.1_America3								
MF953472.1_America3								
KJ747371.1_America4								
KJ747372.1_America4								
Z54156.1_America5								
MK473366.1_America5								
MK473365.1_America5								
MK487379.1_America5								
AF164967.1_A75/17								
Z47764.1								
KX024709.1_ArticLike								
Z47760.1_ArticLike								
KC966928.1_ArticLike								
AF172411.1_ArticLike								
AY964108.1_ArticLike								
DQ226087.1_ArticLike								
MH430949.1_ArticLike								
22458.16								
GU266280.1_RockbornLike								
FJ461702.1_RockbornLike								
AY964114.1_RockbornLike								
GU810819.1_RockbornLike								
Z47759.1_EuropeanWildlife								
GQ214374.2_EuropeanWildlife								
JN153023.1_EuropeanWildlife								
DQ889187.1_EuropeanWildlife								
FJ392651.1_EuropeanWildlife								
DQ889188.1_EuropeanWildlife								
JN153020.1_EuropeanWildlife								
AY386316.1_5804P								
AY386315.1_Europe1_SA1								
JN153024.1_EuropeSA1								
FJ416338.1_EuropeSA1								
GU001863.1_EuropeSA1								
HM120874.1_EuropeSA1								
X85000.1_EuropeSA1								
KJ865300.1_SA2								
FJ392652.1_SA2								
JN215477.1_SA2								
JN215473.1_SA2								
EU098102.1_SA2								
MH362795.1_SA2								
JN215476.1_SA2								
KF835412.1_SA3								
KF835425.1_SA3								
KF835414.1_SA3								
KF835413.1_SA3								
KF835422.1_SA3								
KF835411.1_SA3								
FJ461693.1_Africal								
FJ461704.1_Africal								
FJ461722.1_Africal								
FJ461716.1_Africal								
KY971528.1_Africal								
FJ461719.1_Africal								

Figure 12 (cont.)

FJ461696.1_Africa1	G....K.....G.....N.....
KY971532.1_Africa1	G....K.....D.....N.....
JN812976.1_Africa2	G....K.....N.....D.....S.....N.....
KU578254.1_Africa2	G.....N.....I.....D.....S.....N.....
KC916716.1_Africa2	G....K.....N.....DK.....S.....N.....
KU578256.1_Africa2	G....K.....N.....D.....S.....N.....
KU578255.1_Africa2	G....K.....N.....A.....D.....S.....N.....
KU578253.1_Africa2	G.....N.....I.....D.....S.....N.....
KU578254.1_Africa2	G.....N.....I.....D.....S.....N.....
KC916714.1_Africa2	G.....N.....I.....D.....S.....N.....
AB025271.2_Asia1	G...S.K.....T.....D...W.....N...N.....
D85755.1_Asia1	G...S.....T.....D.....N...N.....
AB687720.2_Asia1	G...S.K.....VT.....D.....N...N.....
EU564813.1_Asia1	G...S.K.....T.....D.....N.....
JQ732176.1_Asia1	E...S.K.....T.....D...S.....N...N.....
EU296484.1_Asia1	G...GS.K.....T.....D.....M...N.....
KJ994343.1_Asia1	G...S.K.....NI.....T.....D.....N...NS.....
MH337872.1_Asia1	G...S.K.....NI.....T.....D.....N...N.....
EU716073.1_Asia2	...K.....D.....N...S.....
AB475099.1_Asia2	...K.....D.....N...S.....
FJ868161.1_Asia2	G...S.K.....E.....D.....N.PH.SV.....
JQ732170.1_Asia2	G....K.....D.....N...S.....
AY297453.1_Asia2	...K.....D.....N...S.....
AB025270.1_Asia2	...K.....D.....N...S.....
AB212730.1_Asia2	...K.....D.....N...S.....
EU743934.1_Asia3	K...R.....K.E.....I...I.G...E...DQ...D.....Y.N.R.S.....
EU743935.1_Asia3	K...R.....K.E.....I...I.G...E...DQ...D.....Y.N.R.S.....
AY297454.1	...K.....D.....N...S.....
KJ489381.1_Asia4	G....K...V.....L.....V.....D.....N.....
KJ437596.1_Asia4	G....K...V.....L.....A.....N.....
MH496773.1_Asia4	G....K...V.....L.....D.....N.....
MH496772.1_Asia4	G....K...V.....L.....D.....N.....
MH496777.1_Asia4	G....K...V.....L.....D.....N.....
MH496778.1_Asia4	G....K...V.....L.....D.....N.....
MH496774.1_Asia4	G....K.....L.....D.....N.....
MF964178.1_Asia5	E....K.....N.....S.....D...V.....P...S.....
MF964179.1_Asia5	E....K.....N.....S.N.....D...V.....P...S.....
MF964182.1_Asia5	E....K.....N.....S.....D...V.....P...S.....
MF964183.1_Asia5	E....K.....N.....S.N.....D...V.....P...S.....
MF964180.1_Asia5	E....K.....N.....S.....D...V.....P...S.....
MF964187.1_Asia5	EK....K.....N.....S.N.....D...V.....P...S.....
MF964181.1_Asia5	E....K.....N.....S.N.....D...V.....P...S.....
MF964185.1_Asia5	E....K.....N.S.....S.....D...V.S.D...P...S.....
MF964186.1_Asia5	E....K.....N.....S.....D...V.....P...S.....

Figure 12 (cont.)

	330	340	350	360	370	380	390	400
AF378705.1_America1	GIFWATPMDHIEEVI	PAVHPSMEKIHI	TNHRGFIKDS	IATWMPALASEKQ	EEQKGCLESAC	ORKTYPMC	NQTSWE	PFPGG
Z35493.1_America1	...GT...						P	
AF259552.1_America1	...G.S...							
DQ903854.1_America1	...							
AY548109.1_America1	...G...							
HM046486.1_America1	...G...					R		
AY542312.2_America1	...G...							
AF112189.1_America2	...G...QV...	...V...		...V...	N...	S		
Z47764.1_America2	...G...QV...	...V...		...V.G...	N...	S	W	
Z47765.1_America2	...G...QV...	...V...		...V...	N...	S		
Z47763.1_America2	...G...QV...	...V...		...V...	S...	S		
Z54166.1_America2	...G...QV...	...V...		...V...	S...	S		
Z54156.1_America2	...G...QV...	P...V...		...V...	N...	S		
KT266736.1_America3	...G.S...QV...	...V...		...V...	N...			
AY964110.1_America3	...G.S...QV...	...V...		...V...	N...	S		
MF953474.1_America3	...G.S...QV...	...V...		...V...	RN...	S		
MF953470.1_America3	...G.S...QV...	...V...		...V...	N.M...	S		
JN836734.1_America3	...G.SI...QV...	...V...		...V...	N...	S		
MF953472.1_America3	...G.S...QV...	...V...		...V...	N...	S		
KJ747371.1_America4	...G.S...QV...	D.LV...	I...	...V...	N...	S		
KJ747372.1_America4	...G.S...QV...	D.LV...	I...	...V...	N...	S		
JF283477.1_America5	...G...QV...	...V...	A...	...V...	N...	S		
Z54156.1_America5	...G...QV...	P...V...		...V...	N...	S		
MK473366.1_America5	...G...QV...	...V...	A...	...V...	N...	RS		
MK473365.1_America5	...G...QV...	...V...	A...	...V...	N...	RS		
MK487379.1_America5	...G...QV...	...V...	A...	...V...	N...	RS		
AF164967.1_A75/17	...G...QV...	...V...		...V...	N...	S		
Z47764.1	...G...QV...	...V...		...V.G...	N...	S	W	
KX024709.1_ArticLike	...G...QV...	...V...		...V...	NL...	N...	S	
Z47760.1_ArticLike	...G...QV...	...V...		...V...	NL...	N...	S	
KC966928.1_ArticLike	...G...QV...	...V...		...V...	NL...	N...	S	
AF172411.1_ArticLike	...G...QV...	VK...		...V...	NL...	N...	S	
AY964108.1_ArticLike	...G...QV...	...V...		...V...	NL...	EN...	S	
DQ226087.1_ArticLike	...G...QV...	...V...		...V...	NL...	N...	S	E
MH430949.1_ArticLike	...G...QV...	...V...		...V...	NL...	N...	S	
22458.16	...G...QV...	...V...		...V...	NL...	N...	S	
GU266280.1_RockbornLike	...G...QV...	...V...		...V...	N...	S		
FJ461702.1_RockbornLike	...G...QV...	...V...		...V...	N...	S		
AY964114.1_RockbornLike	...G...QV...	...V...		...V...	NL...	EN...	S	
GU810819.1_RockbornLike	...G...QV...	...V...		...V...	N...	S		
Z47759.1_EuropeanWildlife	...G...QV...	...V...		...V...	N...	S		
GQ214374.2_EuropeanWildlife	...G...QV...	...V...		...I.GE...	N...	L...	S	
JN153023.1_EuropeanWildlife	...G...QV...	...V...		...I.GE...	N...	S		
DQ889187.1_EuropeanWildlife	...G...QV...	...V...		...V.V...	N...	S		
FJ392651.1_EuropeanWildlife	...G...QV...	...V...	K.I...	...V...	N...			
DQ889188.1_EuropeanWildlife	...G...QV...	...V...		...V.V...	N...	S		
JN153020.1_EuropeanWildlife	...G...QV...	...V...		...I.GE...	N...	S		
AY386316.1_5804P	...G...QV...	...V...		...V...	N...			
AY386315.1_Europe1_SA1	...G...QV...	...V...		...V...	N...			
JN153024.1_EuropeSA1	...G...QV...	M...V...		...V...	N...			
FJ416338.1_EuropeSA1	...G...QV...	M...V...		...V...	N...			
GU001863.1_EuropeSA1	...G.L...QV...	K...V...	N...	...V...	N...			
HM120874.1_EuropeSA1	...G...QV...	M...V...		...V...	N...			
X85000.1_EuropeSA1	...G...QV...	...V...		...V...	NL...	N...		
KJ865300.1_SA2	...G...QV...	...V...		...VF...	N...			
FJ392652.1_SA2	...G...QV...	...V...		...V...	NL...	N...		
JN215477.1_SA2	...G...QV...	V...V...		...V...	N...			
JN215473.1_SA2	...G...QV...	V...V...		...V...	N...			
EU098102.1_SA2	...G...QV...	...V...	A...	...V...	N...		T.R	
MH362795.1_SA2	...G...QV...	...V...		...VF...	N...			
JN215476.1_SA2	...G...QV...	V...V...		...V...	NL...	N...		
KF835412.1_SA3	...G...QV...	I...V.V...	L...	...V...	N...	S		
KF835425.1_SA3	...G...QV...	I...V.V...	L...	...V...	N...	S		
KF835414.1_SA3	...G...QV...	I...V.V...	L...	...V...	N...	S	K	
KF835413.1_SA3	...G...QV...	I...V...	L...	...V...	N...	S		
KF835422.1_SA3	...G...QV...	I...V...	L...	...V...	N...	S		
KF835411.1_SA3	...G...QV...	I...V.V...	L...	...V...	N...	S		
FJ461693.1_Africal	...G...QV...	I...V...		...V.R...	I...	S		
FJ461704.1_Africal	...G...QV...	I...V...		...V.R...	I...	S		
FJ461722.1_Africal	...G...QV...	I...V...		...V.R...	I...	S		
FJ461716.1_Africal	...G...QV...	I...V...		...V.R...	I...	S		
KY971528.1_Africal	...G...QV...	I...V...		...V.R...	I...	S		
FJ461719.1_Africal	...G...QV...	I...V...		...V.R...	I...	S		

Figure 12 (cont.)

FJ461696.1_Africa1	...G...QV...V...V.R...I...S...
KY971532.1_Africa1	...G...QV...V...V.R...I...S...
JN812976.1_Africa2	...G..L..QV...V...QN...S...
KU578254.1_Africa2	...G..LV.QV...V...R...QN...RS...
KC916716.1_Africa2	...G..L..QV...V...QN...S...
KU578256.1_Africa2	...G..L..QV...V...QN...S...
KU578255.1_Africa2	...G..L..QV...V...QN...S...
KU578253.1_Africa2	...G..L..QV...V...QN...RS...
KU578254.1_Africa2	...G..LV.QV...V...R...QN...RS...
KC916714.1_Africa2	...G..LV.QV...V...R...QN...RS...
AB025271.2_Asia1	...G...QV...V.R...V...V...N...S...
D85755.1_Asia1	...G...QV...V.R...V...V...N...S...
AB687720.2_Asia1	...G...QV...V.R...V...V...N...S...R...
EU564813.1_Asia1	...G...QV...I...V.R...V...V.V...N...HI.S...
JQ732176.1_Asia1	...G...QV...I...V.R...VV...V.V...N...S...
EU296484.1_Asia1	...G...QV...I...V.G...V...V.V...N...S...G...
KJ994343.1_Asia1	...G...QV...I...V.R...VV...V.V...N...SC...
MH337872.1_Asia1	...G...QV...I...V.R...VV...V.V.S...N...S...
EU716073.1_Asia2	...G...NQV...V...V...V...Q.G.N...S...
AB475099.1_Asia2	...G...NQV...V.R...V...V...Q.G.N...S...
FF868161.1_Asia2	...G...NQV...V...V...V...Q.G.N...S...
JQ732170.1_Asia2	...G...QV...V...V...V...Q.G.N...S...
AY297453.1_Asia2	...G...NQV...V.R...V...V...Q.G.N...S...
AB025270.1_Asia2	...G...NQV...V.R...V...V...Q.G.N...S...
AB212730.1_Asia2	...G...NQV...V.R...V...V...Q.G.N...S...
EU743934.1_Asia3	...E.S..NQV...N..V.R...Y.I..V...V..RL.G.EN...R.ES...K...C...
EU743935.1_Asia3	...E.S..NQV...N..V.R...Y.I..V...V..RL.G.EN...R.ES...K...C...
AY297454.1	...G...NQV...V.R...V...V...Q.G.N...S...
KJ489381.1_Asia4	...G...QV...V..M...V.V...N...S...
KJ437596.1_Asia4	...G...QV...V...V.V...N...S...
MH496773.1_Asia4	...G...QV.V...S.V..M...V.V...N...S...
MH496772.1_Asia4	...G...QV.V...S.V..M...V.V...N...S...
MH496777.1_Asia4	...G...QV.V...S.V..M...V.V...N...S...
MH496778.1_Asia4	...G...QV...S.V..M...V.V...N...S...
MH496774.1_Asia4	...G...QV...S.V..M...V.V...N...S...
MF964178.1_Asia5	...G..L..QV.K...V...QT...
MF964179.1_Asia5	...G..L..QV.K...I...QT...
MF964182.1_Asia5	...A..L..QV.K...V...QT...
MF964183.1_Asia5	...G..L..QV.K...I...QT...
MF964180.1_Asia5	...G..L..QV.K...I...QT...
MF964187.1_Asia5	...G..L..QV.K...I...QT...
MF964181.1_Asia5	...G..L..QV.K...I...QT...
MF964185.1_Asia5	...G..L..QV.K...V...QN...
MF964186.1_Asia5	...M.G..L..QV.K...V...QN...

Figure 12 (cont.)

	410	420	430	440	450	460	470	480
AF378705.1_America1	RQLPSYGR	LTPLDAS	VDLQ	LNISFTY	GPVILNG	DGMDYY	ESPLLNS	GWLTIPP
Z35493.1_America1	.....	.....	.....	.....	.....	.....	.....	.....
AF259552.1_America1	G.....	.....	.....	V.....	.....	L.....	S.....	I.....
DQ903854.1_America1	.....	.....	.....	.....	.....	F.....	.....	.....
AY548109.1_America1	G.....	.....	.....	V.....	.....	L.....	S.....	I.....
HM046486.1_America1	G.....	.....	.....	.....	.....	L.....	S.....	I.....
AY542312.2_America1	G.....	.....	.....	V.....	.....	L.....	S.....	I.....
AF112189.1_America2	G.....	P.I.....	A.....	.....	D.....	VL.....	S.....	S.....
Z47764.1_America2	G.....	P.I.....	.....	.....	D.....	VL.....	S.....	II.....
Z47765.1_America2	G.....	AP.I.....	R.....	.....	D.....	VL.....	S.....	I.....
Z47763.1_America2	G.....	P.I.....	.....	N.....	G.....	VL.....	S.....	I.....
Z54166.1_America2	G.....	P.I.....	.....	N.....	G.....	VL.....	S.....	I.....
Z54156.1_America2	G.....	P.I.....	.....	.....	D.....	VL.....	S.....	I.....
KT266736.1_America3	G.....	PRT.....	.....	.....	SD.....	VL.....	S.....	I.....
AY964110.1_America3	G.....	P.T.....	.....	.....	SD.....	VL.....	S.....	I.....
MF953474.1_America3	G.....	P.T.....	.....	.....	SD.....	VL.....	S.....	I.....
MF953470.1_America3	G.....	P.T.....	.....	.....	SD.....	VL.....	S.....	I.....
JN836734.1_America3	G.....	P.T.....	.....	.....	SD.....	VL.....	S.....	I.....
MF953472.1_America3	G.....	P.T.....	.....	.....	SD.....	VL.....	S.....	I.....
KJ747371.1_America4	G.....	P.I.....	.....	I.....	.....	VL.....	S.....	I.....
KJ747372.1_America4	G.....	P.I.....	.....	I.....	.....	VL.....	S.....	I.....
Z54156.1_America5	G.....	P.I.....	.....	.....	D.....	VL.....	S.....	I.....
MK473366.1_America5	G.....	P.I.....	.....	.....	.....	VL.....	S.....	I.....
MK473365.1_America5	G.....	P.I.....	.....	.....	.....	VL.....	S.....	I.....
MK487379.1_America5	G.....	P.I.....	.....	.....	.....	VL.....	S.....	I.....
AF164967.1_A75/17	G.....	P.I.....	.....	.....	D.....	VL.....	S.....	I.....
Z47764.1	G.....	P.I.....	.....	.....	D.....	VL.....	S.....	II.....
KX024709.1_ArticLike	G.....	H.....	T.R.....	.....	N.....	MD.....	L.....	S.....
Z47760.1_ArticLike	G.....	.....	I.R.....	.....	.....	D.....	L.....	S.....
KC966928.1_ArticLike	G.....	H.....	T.R.....	.....	N.....	MD.....	L.....	S.....
AF172411.1_ArticLike	G.....	.....	I.R.....	.....	.....	D.....	L.....	S.....
AY964108.1_ArticLike	G.....	H.....	I.R.....	.....	.....	D.....	L.....	S.....
DQ226087.1_ArticLike	G.....	H.....	I.R.I.....	.....	.....	D.....	L.....	S.....
MH430949.1_ArticLike	G.....	.....	V.I.....	.....	.....	D.....	L.....	S.....
22458.16	G.....	H.....	T.R.....	.....	N.....	D.....	L.....	S.....
GU266280.1_RockbornLike	G.....	.....	P.I.....	.....	.....	D.....	VL.....	S.....
FJ461702.1_RockbornLike	G.....	.....	P.I.....	.....	.....	D.....	VL.....	S.....
AY964114.1_RockbornLike	G.....	H.....	P.I.....	.....	.....	D.....	VL.....	S.....
GU810819.1_RockbornLike	G.....	.....	P.I.....	.....	.....	D.....	VL.....	S.....
Z47759.1_EuropeanWildlife	G.....	.....	PGI.....	.....	.....	D.....	VL.....	S.....
GQ214374.2_EuropeanWildlife	G.....	.....	PDI.....	.....	.....	DF.....	VL.....	S.....
JN153023.1_EuropeanWildlife	G.....	.....	PGI.....	.....	.....	D.....	VL.....	S.....
DQ889187.1_EuropeanWildlife	G.....	.....	PGI.....	.....	L.....	.....	I.....	S.....
FJ392651.1_EuropeanWildlife	G.....	.....	P.I.....	.....	.....	D.....	VL.....	M.....
DQ889188.1_EuropeanWildlife	G.....	.....	PGI.....	.....	I.....	.....	L.....	S.....
JN153020.1_EuropeanWildlife	G.....	.....	PGI.....	.....	.....	D.....	VL.....	S.....
AY386316.1_5804P	G.....	.....	P.I.....	.....	.....	SD.....	R.....	VL.....
AY386315.1_Europe1_SA1	G.....	.....	P.I.....	.....	.....	SD.....	R.....	VL.....
JN153024.1_EuropeSA1	G.....	.....	P.I.....	.....	.....	D.....	VL.....	S.....
FJ416338.1_EuropeSA1	G.....	.....	P.I.....	.....	V.....	.....	D.....	VL.....
GU001863.1_EuropeSA1	G.....	.....	P.M.....	.....	.....	PD.....	VL.....	S.....
HM120874.1_EuropeSA1	G.....	.....	P.I.....	.....	V.....	.....	D.....	VL.....
X85000.1_EuropeSA1	G.....	.....	P.I.....	.....	.....	SD.....	R.....	VL.....
KJ865300.1_SA2	G.....	.....	P.I.....	.....	.....	T.SD.....	.....	L.....
FJ392652.1_SA2	G.....	W.....	P.I.....	.....	V.....	.....	SD.....	L.....
JN215477.1_SA2	G.....	.....	PNI.....	.....	.....	.....	SD.....	L.....
JN215473.1_SA2	G.....	.....	PNI.....	.....	.....	.....	SD.....	L.....
EU098102.1_SA2	G.....	.....	P.I.....	.....	.....	.....	SD.....	L.....
MH362795.1_SA2	G.....	.....	P.I.....	.....	.....	.....	T.SD.....	L.....
JN215476.1_SA2	G.....	.....	PNI.....	.....	.....	.....	SD.....	L.....
KF835412.1_SA3	G.....	.....	P.I.....	.....	H.....	.....	S.SD.....	S.....
KF835425.1_SA3	E.....	.....	P.I.....	.....	H.....	.....	S.SD.....	VL.....
KF835414.1_SA3	E.....	.....	P.I.....	.....	H.....	.....	S.SD.....	VL.....
KF835413.1_SA3	E.....	.....	P.I.....	.....	H.....	.....	S.SD.....	VL.....
KF835422.1_SA3	G.....	.....	P.I.....	.....	H.....	.....	SD.....	VL.....
KF835411.1_SA3	G.....	.....	P.I.....	.....	H.....	.....	S.SD.....	VL.....
FJ461693.1_Africal	G.....	.....	I.....	.....	.....	.....	D.....	L.....
FJ461704.1_Africal	G.....	.....	I.....	.....	.....	.....	D.....	L.....
FJ461722.1_Africal	G.....	.....	I.....	.....	.....	.....	D.....	L.....
FJ461716.1_Africal	G.....	.....	I.....	.....	.....	.....	D.....	L.....
KY971528.1_Africal	G.....	.....	S.I.....	.....	.....	.....	D.....	L.....
FJ461719.1_Africal	G.....	.....	I.....	.....	.....	.....	D.....	L.....
FJ461696.1_Africal	G.....	.....	I.....	.....	.....	.....	D.....	VL.....

Figure 12 (cont.)

KY971532.1_Africa1	G.....I.....F.DP.....L.....S.....I.....
JN812976.1_Africa2	I.P.I.....D.....D.....VL.....S.....I.....
KU578254.1_Africa2	A..I.P.IH.....D.....D.....VL.....S.....I.....
KC916716.1_Africa2	I.P.I.....D.....D.....VL.....S.....I.....
KU578256.1_Africa2	I.P.I.....D.....D.....VL.....S.....I.....
KU578255.1_Africa2	I.P.I.....H.....D.....D.....VL.....S.....I.....
KU578253.1_Africa2	I.P.IH.....D.....D.....VL.....S.....I.....
KU578254.1_Africa2	A..I.P.IH.....D.....D.....VL.....S.....I.....
KC916714.1_Africa2	A..I.P.IH.....D.....D.....VL.....S.....I.....
AB025271.2_Asia1	G.....P.I.....SD.....VL.....S.....T.....
D85755.1_Asia1	G.....L..P.I.....D.....V.....VL.....S.....T.....
AB687720.2_Asia1	G.....P.I.....Y.....D.....D.....VL.....S.....T.....
EU564813.1_Asia1	G.....P.I.....D.....D.....VL.....S.....T.....
JQ732176.1_Asia1	G.....P.....E.....VL.....S...H...T.....
EU296484.1_Asia1	G.....P.I.....A.....D.....D.....VL.....S.....T.....
KJ994343.1_Asia1	G.....P..N.....E.....S.VL.....S.....T.....
MH337872.1_Asia1	G.....P.....E.....V.....VL.....S.....T.Y.....
EU716073.1_Asia2	V.....I.....D.....L.....S.....T.....
AB475099.1_Asia2	V.....I.....N.....D.....L.....S...K...T.....
FJ868161.1_Asia2	V.....H...I.....N.....D.....L.....S.....T.....
JQ732170.1_Asia2	V.....I.....D.....D.....L.....S.....I.....
AY297453.1_Asia2	V.....I.....N.....D.....L.....S.....T.....
AB025270.1_Asia2	V.....I.....N.....D.....L.....S.....T.....
AB212730.1_Asia2	V.....I.....N.....D.....L.....S.....T.....
EU743934.1_Asia3	V.V.....ERI.....N.....D.R.....L.....S.E...TS...
EU743935.1_Asia3	V.V.....ERI.....N.....D.R.....L.....S.E...TS...
AY297454.1	V.....I.....N.....D.....L.....S.....T.....
KJ489381.1_Asia4	G.....P.I.....N.....I.D.....VL.....S.....V.....
KJ437596.1_Asia4	G.....P.I.....N.....D.....VL.....R.S.....V.....
MH496773.1_Asia4	G.....P.I.....N.....I.D.....VL.....S.....V.....
MH496772.1_Asia4	G.....P.I.....N.....I.D.....VL.....S.....V.....
MH496777.1_Asia4	G.....P.I.....N.....I.D.....VL.....S.....V.....
MH496778.1_Asia4	G.....P.I.....N.....I.D.....VL.....S.....V.....
MH496774.1_Asia4	G.....P.I.....N.....I.D.....VL.....S.....V.....
MF964178.1_Asia5	P.I.....G.....DY.....VL.....S...E...I.....
MF964179.1_Asia5	P.I.....G.....DY.....VL.....S.....I.....
MF964182.1_Asia5	P.I.....G.....DY.....VL.....S...E...I.....
MF964183.1_Asia5	P.I.....G.....DY.....VL.....S.....I.....
MF964180.1_Asia5	P.I.....G.....DY.....VL.....S.....I.....
MF964187.1_Asia5	P.I.....G.....GY.....VL.....S.....I.....
MF964181.1_Asia5	P.I.....G.....DY.....VL.....S.....I.....
MF964185.1_Asia5	GR.....P.I...I.....G.....D.....VL.....S.....I.....
MF964186.1_Asia5	S..P.I.....G.....D.....VL.....S.....I.....

Figure 12 (cont.)

	490	500	510	520	530	540	550	560
AF378705.1_America1	FAPWESSGNCYLPIQTSQI	IDRDVLIESNIVVLPTQ	SFRYVIATYDISRSDHA	IVVYVYDPIRTISYTHP	FLTTKGRPD			
Z35493.1_America1	M	L						
AF259552.1_America1	R	G	L		N	F	F	Y
DQ903854.1_America1	R							
AY548109.1_America1	R	G	L		N	F	F	Y
HM046486.1_America1	R	C	V		N			
AY542312.2_America1	R	G	L		N	F	F	Y
AF112189.1_America2	R		M.K.	T	L	N	G	A
Z47764.1_America2	R		M.K.	T	L	N	I	G
Z47765.1_America2	R		M.K.	T	L	N		T
Z47763.1_America2	R		M.K.	T	L	N		
Z54166.1_America2	R		M.K.	T	L	N		
Z54156.1_America2	R		M.K.	T	L	N	I	G
KT266736.1_America3	R		M.K.	T	L	N		T
AY964110.1_America3	R		M.K.	T	L	N		DN
MF953474.1_America3	R		M.K.	T	L	N		DN
MF953470.1_America3	R		M.K.	T	L	N		DN
JN836734.1_America3	R		M.K.	T	L	N		DN
MF953472.1_America3	R		M.K.	T	L	N		DN
KJ747371.1_America4	R		M.K.	T	L	S	N	V
KJ747372.1_America4	R		M.K.	T	L	S	N	V
Z54156.1_America5	R		M.K.	T	L	N	I	G
MK473366.1_America5	R		M.K.	T	LM	N		G
MK473365.1_America5	R		M.K.	T	LM	N		G
MK487379.1_America5	R	R	M.K.	T	LM	N		G
AF164967.1_A75/17	R		M.K.	T	L	N		G
Z47764.1	R		M.K.	T	L	N	I	G
KX024709.1_ArticLike	R		M.K.	T	L	N		N
Z47760.1_ArticLike	R		M.K.	T	L	N		N
KC966928.1_ArticLike	R		M.K.	T	L	N		N
AF172411.1_ArticLike	R		M.K.	T	L	N		G
AY964108.1_ArticLike	R		M.K.	T	L	N		N
DQ226087.1_ArticLike	R		M	T	L	N		N
MH430949.1_ArticLike	R		M.K.	T	L	N		N
22458.16	R		M.K.	T	L	N		N
GU266280.1_RockbornLike	R		F	M.K.	T	L	N	D
FJ461702.1_RockbornLike	R		F	M.K.	T	L	N	K
AY964114.1_RockbornLike	R		F	M.K.	T	L	N	D
GU810819.1_RockbornLike	R		F	M.K.	T	L	N	D
Z47759.1_EuropeanWildlife	R		M	T	L	N		N
GQ214374.2_EuropeanWildlife	R		M.K.	T	L	N		D
JN153023.1_EuropeanWildlife	S	R	R		M.K.	T	L	N
DQ889187.1_EuropeanWildlife	R		M.K.	T	L	N		D
FJ392651.1_EuropeanWildlife	R	G		M.K.	A	L	N	D
DQ889188.1_EuropeanWildlife	R		M.K.	T	L	N		D
JN153020.1_EuropeanWildlife	S	R	R		M.K.	T	L	N
AY386316.1_5804P	R		M.K.	T	L	N		G
AY386315.1_Europe1_SA1	R		M.K.	T	L	N		G
JN153024.1_EuropeSA1	R		M.K.	T	L	N		G
FJ416338.1_EuropeSA1	R		L	K	T	L	N	G
GU001863.1_EuropeSA1	R		M.K.	T	L	N		I
HM120874.1_EuropeSA1	R		M.K.	T	L	N		G
X85000.1_EuropeSA1	R		M.K.	T	L	N		G
KJ865300.1_SA2	R		M.K.	T	L	N		G
FJ392652.1_SA2	R		M.K.	T	L	N		G
JN215477.1_SA2	R		M.K.	T	L	N		S
JN215473.1_SA2	R		M.K.	T	L	N		S
EU098102.1_SA2	R		M.N	T	L	L	N	G
MH362795.1_SA2	R		M.K.	T	L	N		G
JN215476.1_SA2	R		M.K.	TG	L	N		S
KF835412.1_SA3	R		R		M.K.		L	N
KF835425.1_SA3	R		R		M.K.		L	N
KF835414.1_SA3	R		R		M.K.		L	N
KF835413.1_SA3	R		R		M.K.		L	N
KF835422.1_SA3	R		R		M.K.		L	N
KF835411.1_SA3	R		R		M.K.		L	N
FJ461693.1_Africa1	S	R		S		M.K.	T	L
FJ461704.1_Africa1	S	R		S		M.K.	T	L
FJ461722.1_Africa1	S	R		S		M.K.	T	L
FJ461716.1_Africa1	S	R		S		M.K.	T	L
KY971528.1_Africa1	S	R		S		M.K.	T	L
FJ461719.1_Africa1	S	R		S		M.K.	T	L
FJ461696.1_Africa1	R		S		M.K.	T	L	N
KY971532.1_Africa1	R		S		VM	K	T	L
JN812976.1_Africa2	R		K		M.K.	T	L	N

Figure 12 (cont.)

KU578254.1_Africa2	...R.....M.K...T...L.....N.....V..D.....Y.....
KC916716.1_Africa2	...R.....M.K...T...L.....N.....V..D.....
KU578256.1_Africa2	...R.....M.K...T...L.....N.I.....V..D.....
KU578255.1_Africa2	...R.....M.K...T...L.....N.I.....V..D.....
KU578253.1_Africa2	...R.....M.K...T...L.....N.....V..D.....Y.....
KU578254.1_Africa2	...R.....M.K...T...L.....N.....V..D.....Z.....
KC916714.1_Africa2	...R.....M.K...T...L.....N.....V..D.....Y.....
AB025271.2_Asia1	...R.....M.K...T...L.....N.....G.....G.....Y.....
D85755.1_Asia1	...R.....M.K...T...L.....N.....G.....G.....MY.....
AB687720.2_Asia1	...R.....M.K...T...L.....N.....G.....F.....Y.....
EU564813.1_Asia1	...R.....M.K...T...L.....N.....G.....D.....Y.....
JQ732176.1_Asia1	...R.....M.K...T...L.....N.....G.....Y.....
EU296484.1_Asia1	...R.....M.K...T...L.....N.....G.....Y.....
KJ994343.1_Asia1	...R.....M.K...T...L.....N.....GN.....N.....
MH337872.1_Asia1	...R.....M.K...T...L.....N.....G.....N.....
EU716073.1_Asia2	...R...E.....M.K...T...L.....N.....EN.....Y.....
AB475099.1_Asia2	...R.....M.K...T...L.....N...V.....EN.....Y.....
FJ868161.1_Asia2	...R.....M.K...T...L.....N...V.....GN.....MY.....
JQ732170.1_Asia2	...R.....M.K...T...L.....N...V.....D.....Y.....
AY297453.1_Asia2	...R.....M.K...T...L.....N...V.....KN.....MY.....
AB025270.1_Asia2	...R.....M.K...T...L.....N.G.V.....EN.....Y.....
AB212730.1_Asia2	...R.....M.K...T...L.....N...V.....EN.....Y.....
EU743934.1_Asia3	...R.....M.K...T...L.F...N...V.....RY.....Y.....
EU743935.1_Asia3	...R.....M.K...T...L.F...N...V.....RY.....Y.....
AY297454.1	...R.....M.K...T...L.....N...V.....EN.....Y.....
KJ489381.1_Asia4	...R.....M.K.....L.....N.....D.....Y.....
KJ437596.1_Asia4	...R.....M.K.....L.....N.....D.....Y.....
MH496773.1_Asia4	...R.....M.K...T...L.....N.....D.....Y.....
MH496772.1_Asia4	...R.....M.K...T...L.....N.....D.....Y.....
MH496777.1_Asia4	...R.....M.K...T...L.....N.....D.....Y.....
MH496778.1_Asia4	...R.....M.K...T...L.....N.....D.....Y.....
MH496774.1_Asia4	...R.....M.K...T...L.....N.....D.....Y.....
MF964178.1_Asia5	...R.P.....M.K...T...L...L.HN.....V..D.....D.....K.Y.Y.....
MF964179.1_Asia5	...R.....M.K...T...L...L..N.....V..D.....Y.....
MF964182.1_Asia5	...R.....M.K...T...L...L.HN.....V..D.....Y.....
MF964183.1_Asia5	...R.....M.K...T...L...L..N.....V..D.....
MF964180.1_Asia5	...R.....M.K...T...L...L..N.....V..G.....Y.....
MF964187.1_Asia5	...R.....M.K...T...L...L..N.....V..D.....Y.....
MF964181.1_Asia5	...R.....M.K...T...L...L..N.....V..D.....C.....Y.....
MF964185.1_Asia5	...R.....M.K...T...L...R..N.....V..N.....Y.....
MF964186.1_Asia5	...R.....M.K...T...L...L..N...V...V..D.....Y.....

Figure 12 (cont.)

	570	580	590	600
AF378705.1_America1	FLR	IECFVWDDNLWCHQFYRFEADIANSTTSVENLVRI	FSCNR	*---
Z35493.1_America1		N		SNP*
AF259552.1_America1		Y	N	SNP*
DQ903854.1_America1				*---
AY548109.1_America1		Y	N	SNP*
HM046486.1_America1		Y	N	SNP*
AY542312.2_America1		Y	N	SNP*
AF112189.1_America2	D		ST	SKP*
Z47764.1_America2	D	T	ST	I SKP*
Z47765.1_America2	D	T	ST	S SKP*
Z47763.1_America2	D		ST	H SKP*
Z54166.1_America2	D	T	ST	S SKP*
Z54156.1_America2	D		ST	SKP*
KT266736.1_America3	D	T	I	T DP S K SGP*
AY964110.1_America3	D	T		S SRP*
MF953474.1_America3	D	T	A	SRP*
MF953470.1_America3	D	T	A	SRP*
JN836734.1_America3	D	T		---
MF953472.1_America3	D	T	A	SRP*
KJ747371.1_America4	D	T		M SKP*
KJ747372.1_America4	D	T		M SKP*
Z54156.1_America5	D		ST	SKP*
MK473366.1_America5	D	T	ST	SKP*
MK473365.1_America5	D	T	ST	SKP*
MK487379.1_America5	D	T	ST	SKP*
AF164967.1_A75/17	D		ST	SKP*
Z47764.1	D	T	ST	I SKP*
KX024709.1_ArticLike	D	T		SKP*
Z47760.1_ArticLike	D	T		SKP*
KC966928.1_ArticLike	D	T		SKP*
AF172411.1_ArticLike	D	T		SKP*
AY964108.1_ArticLike	D	N		SKP*
DQ226087.1_ArticLike	D	T		SKP*
MH430949.1_ArticLike	GD	T		K SKP*
22458.16	D	T		SKP*
GU266280.1_RockbornLike	D	T	F	SKP*
FJ461702.1_RockbornLike	D	T	D	SKP*
AY964114.1_RockbornLike	D	T	FP	SKP*
GU810819.1_RockbornLike	D	T	F	SKP*
Z47759.1_EuropeanWildlife	D	T		SKP*
GQ214374.2_EuropeanWildlife	G	D	T	SKH*
JN153023.1_EuropeanWildlife	D	T		H SKP*
DQ889187.1_EuropeanWildlife	YD	T		SKP*
FJ392651.1_EuropeanWildlife	D	T		SKP*
DQ889188.1_EuropeanWildlife	YD	T		SKP*
JN153020.1_EuropeanWildlife	D	T		H SKP*
AY386316.1_5804P	D	T		SKP*
AY386315.1_Europe1_SA1	D	T		SKP*
JN153024.1_EuropeSA1	D	T	I	H SKP*
FJ416338.1_EuropeSA1	D	Q	T	I H SKP*
GU001863.1_EuropeSA1	D		VT	K D SKP*
HM120874.1_EuropeSA1	D	T	I	H SKP*
X85000.1_EuropeSA1	D	T		SKP*
KJ865300.1_SA2	D	T		SKP*
FJ392652.1_SA2	S	D	Q	T SKP*
JN215477.1_SA2	D	Q	T	SKP*
JN215473.1_SA2	D	Q	T	SKP*
EU098102.1_SA2	D	Q	T	SKP*
MH362795.1_SA2	D	T		SKP*
JN215476.1_SA2	D	Q		G SKP*
KF835412.1_SA3	D	K	T	SKP*
KF835425.1_SA3	D	K	T	SKP*
KF835414.1_SA3	D	K	T	SKP*
KF835413.1_SA3	D	T		SKP*
KF835422.1_SA3	D	T		SKP*
KF835411.1_SA3	D	K	T	SKP*
FJ461693.1_Africal	D	T	T	SKP*
FJ461704.1_Africal	D	T	T	SKP*
FJ461722.1_Africal	D	T	T	SKP*
FJ461716.1_Africal	D	T	T	SKP*
KY971528.1_Africal	D	T	T	SKP*
FJ461719.1_Africal	D	T		SRP*
FJ461696.1_Africal	D	T		SKP*
KY971532.1_Africal	D	T	T	SKP*

Figure 12 (cont.)

JN812976.1_Africa2	D.....VT.....C.....SKP*
KU578254.1_Africa2	D.....VT.....C.....SKP*
KC916716.1_Africa2	D.....VT.....C.....SKP*
KU578256.1_Africa2	D.....VT.....C.....SKP*
KU578255.1_Africa2	D.....VT.....C.....SKP*
KU578253.1_Africa2	D.....VT.....C.....SKP*
KU578254.1_Africa2	D.....VT.....C.....SKP*
KC916714.1_Africa2	D.....VT.....C.....SKP*
AB025271.2_Asia1	D.....N.T.....SKP*
D85755.1_Asia1	D.....N.T.....SKP*
AB687720.2_Asia1	D.....N.T.....H.....SKP*
EU564813.1_Asia1	D.....N.T.....SKP*
JQ732176.1_Asia1	D.....NVT.....SKP*
EU296484.1_Asia1	D.....N.T.....SKP*
KJ994343.1_Asia1	D.....N.T.....SKP*
MH337872.1_Asia1	D.....N.T.....SKP*
EU716073.1_Asia2	D.....S..TS.....D.....SKP*
AB475099.1_Asia2	D.....S..T.....D.....SKP*
FJ868161.1_Asia2	D.....S..T.....D.....SKP*
JQ732170.1_Asia2	D.....T.....SKP*
AY297453.1_Asia2	D.....S..T.....D.....SKP*
AB025270.1_Asia2	D.....S..T.....D.....SKP*
AB212730.1_Asia2	D.....S..T.....D.....SKP*
EU743934.1_Asia3	D.....S..T.....D.....SEP*
EU743935.1_Asia3	D.....S..T.....D.....SEP*
AY297454.1	D.....S..T.....D.....SKP*
KJ489381.1_Asia4	D.....T.....S..M.....SKP*
KJ437596.1_Asia4	D.....T.A.....S..M.....SKP*
MH496773.1_Asia4	D.....D..T.....SKP*
MH496772.1_Asia4	D.....D..T.....SKP*
MH496777.1_Asia4	D.....D..T.....SKP*
MH496778.1_Asia4	D.....D..T.....SKP*
MH496774.1_Asia4	D.....D..VT.....SKP*
MF964178.1_Asia5	D.....VT.....SKP*
MF964179.1_Asia5	G.D.....VT.....K.....SKP*
MF964182.1_Asia5	D.....VT.....SKP*
MF964183.1_Asia5	D.....VT.....SKP*
MF964180.1_Asia5	D.....VT.....SKP*
MF964187.1_Asia5	D.....VT.....SKP*
MF964181.1_Asia5	D.....VT.....SKP*
MF964185.1_Asia5	D.....VT.....H...F...SKP*
MF964186.1_Asia5	D.....VT.....SKP*

Figure 13 (cont.)

KP765763_SD7_FOX_CN_2014	RD..G..H.T....TR..S.WFK...S..T.A...H.....I.....
KP738610_SD11_RACCOONDOG_CN_20	RD..G..H.T....TR..S.WFK...S..T.A...Y.....I.....
MH337872_SD16F_FOX_CN_2016	RD..G..H.T....TR..S.WFK...S..T.A...Y.....I.T.....
KX499865_ZYL_FOX_CN_2015	RD..G..H.T....TQ..S.WFK.W.S..T.A...I.....I.....
MF041963_CDV06_WOLF_ET_2016	RD..G..H.T..N.TQ..S.WFK.W.S..T.A...I.....I.....
KJ848781_RDJL_RACCOONDOG_CN_20	RD..G.FH.T....TR..S.WFK...Y..T.A...Y.....I.....
KX709880_HL001_DOG_CN_2012	RD..G..H.T....TR..S.WFK...S..T.A...Y.....I.....
LC159587_HCM33_DOG_VN_2014	RD..G..H.T....TQ..SS.WCK.W.S..T.A...I.....I.....
AB687720_CYN07DV_MACAQUE_JP_20	RD..G..H.T....TQ.VGFWFK..RS..T.A...I.....I.....
KF856711_BJ01_MONKEY_CN_2006	RD..G..H.T....TQ.VGFWFK..RS..T.A...I.....I.....
HM852904_MKYKM08_MACAQUE_CN_20	RD..G..H.T....TQ.VGFWFK..RS..T.A...I.....I.....
LC342298_RC13_RACCOON_JP_2016	RD..G..H.T..G.TQ..S.WFK...S..S.P.....I.....
KJ994343_ZC_RACCOONDOGV_CN_201	RD..G..H.T....TQ..G.WLK.W.S..T.A...I.....V.....
KY971532_WT02_HYENA_SA_2017	.D..GTVL.T....Q.M..WPKG..S....TD.H.A...I.....
KY971528_WT01_DOG_SA_2016	.D..GTVL.T....Q.V..KPKG..S....IA.H.A..I.....I.....
PC0046_SEAL_KZ_2000	.D...TT.....A...K..L...SD.....F.M.....
PC0020_SEAL_KZ_2000	.D...TT.....A...K..L...SD.....F.T.....
PC0021_SEAL_AZ_2000	.D...TT.....A...K..L...SD.....F.T.....
MH316137_1747_DOG_IT_2018	.D..G..H.T....Q..GPRKLGORY..T.....I...G.....
	170 180 190 200 210 220 230 240
AF378705_ONDERSTEPOORT	PSHQYLVIKLMPNVSILIDNCTKAELEGYEKLLNSVLEPINQALTIMTKNVKPLQSLGSGRRORRFAGVVLAGAALGVATA
KY971531_OVI_SA_2017	V.....
MF926604_BJ16C9_DOG_CN_2017	V.....
AF305419_ONDERSTEPOORT	E.....V.....
AF014953_ONDERSTEPOORT	E.....V.....
KY971529_BUCHAREST_SA_2017	E.....V.....
JN896987_SNYDERHILL_1940	V.....A.....
KM926612_CDV_L_CN_1992	A.....
HM063009_SHUSKIY_MINK_KZ_1998	A.....
HM046486_PHOCACASPIAN2007_SEAL	E...A.....
S460_RACCOON_DE_2015	S.....V.....
S272_FOX_DE_2016	S.....V.....
S466_RACCOON_DE_2015	S.....V.....
AY386315_5804_DOGV_DE_1989	S.....V.....
MF437053_GABON_DOG_GA_2015	S.....S.....V.....
KM280689_251_DOG_UY_2012	S.....V.....
KX434626_LDMBTU2_BR_2013	S.....V.....
MH426739_LDMBTU1_FOX_BR_2014	S.....V.....
MH382872_LDMBTU5_BR_2013	.N.....T.....S.....V.....
MH349541_LDMBTU3_BR_2013	.R.....S.....V.....
AY466011_2654_RACCOON_US_1998	E.....A.....V.....
AY443350_2601_RACCOON_US_2000	E.....K.....
EU716337_164071_DOG_US_2004	V.....
AY649446_2689_RACCOON_US_2001	V.....
AF164967_A7517_DOGV_US_1975	V.....
KJ123771_171391513_DOG_US_2004	V.....
KU666057_RHODEISLAND_RACCOON_U	V.....
KF640687_R252_DOGV_US_1974	V.....
KU578257_SE_DOG_TZ_1994	S.....I.....
KU578256_SNP_LION_TZ_1994	S.....I.....
KU578255_SNP_HYENA_TZ_1994	S.....I.....
KU578254_SE_JACKAL_TZ_2011	S.....I.....
KU578253_SE_DOG_TZ_2007	S.....I.....
AB474397_007LM_DOG_JP_2004	D.....S.I.....V.....
AB475099_55L_DOG_JP_2009	D.....S.I.....V.....
AB476401_011C_DOG_JP_2004	D.....S.I.....V.....
AB490672_009LH_DOGH_JP_2004	D.....S.I.....V.....
AB490678_50CBLH_DOGH_JP_2009	D.....V.....
KF914669_2784_DOG_IT_2013	V.....
KX024709_12254_BADGER_IT_2015	V.....
22458_DOG_SPA_2016	V.....
KX774415_PT61_TIGER_RU_2004	T.....V..S.....
BAIKAL_SEAL_RU_1988	V.....
MH496772_1_DOG_TH_2014	RT.....N.....I.....
MH496773_2_DOG_TH_2014	RT.....N.....I.....
MH496777_6_DOG_TH_2014	RT.....N.....I.....
MH496778_7_DOG_TH_2014	RT.....N.....V.....
MH496775_3_DOG_TH_2014	RT.....N.....I.....
KJ747372_2262_DOG_US_2013	V.....
KJ747371_1941_FOX_US_2013	A.....I.....V.....
KJ466106_SY_RACCOONDOG_CN_2012	N.....V.....

Figure 13 (cont.)

KU578257_SE DOG TZ 1994	N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</
-------------------------	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

Figure 13 (cont.)

KM926612_CDVL_CN_1992	.....	S.....
HM063009_SHUSKIY_MINK_KZ_1998	.....	S.....
HM046486_PHOCACASPIAN2007_SEAL	.....	S.....
S460_RACCOON_DE_2015	.....	M.S.....
S272_FOX_DE_2016	.....	M.S.....
S466_RACCOON_DE_2015	.....	M.S.....
AY386315_5804_DOGV_DE_1989	.....	S.....
MF437053_GABON_DOG_GA_2015	.....	S.....
KM280689_251_DOG_UY_2012	.....	G.....
KX434626_LDMBTU2_BR_2013	.....	G.....
MH426739_LDMBTU1_FOX_BR_2014	.....	G.....
MH382872_LDMBTU5_BR_2013	.....	G.....
MH349541_LDMBTU3_BR_2013	.....	G.....
AY466011_2654_RACCOON_US_1998	.....	S.....
AY443350_2601_RACCOON_US_2000	.....	G.....
EU716337_164071_DOG_US_2004	.....	G.....
AY649446_2689_RACCOON_US_2001	.....	G.....
AF164967_A7517_DOGV_US_1975	.....	G.....
KJ123771_171391513_DOG_US_2004	.....	G.....
KU666057_RHODEISLAND_RACCOON_U	.....	G.....
KF640687_R252_DOGV_US_1974	.....	I.....
KU578257_SE_DOG_TZ_1994	.....	I.V.....
KU578256_SNP_LION_TZ_1994	.....	S.....
KU578255_SNP_HYENA_TZ_1994	.....	S.....
KU578254_SE_JACKAL_TZ_2011	.....	S.....
KU578253_SE_DOG_TZ_2007	.....	S.....
AB474397_007LM_DOG_JP_2004	.....	S.....
AB475099_55L_DOG_JP_2009	.....	S.....
AB476401_011C_DOG_JP_2004	.....	S.....
AB490672_009LH_DOGH_JP_2004	.....	S.....
AB490678_50CBLH_DOGH_JP_2009	.....	S.....
KF914669_2784_DOG_IT_2013	.....	S.....
KX024709_12254_BADGER_IT_2015	.....	S.....
22458_DOG_SPA_2016	.....	I.....
KX774415_PT61_TIGER_RU_2004	.....	---
BAIKAL_SEAL_RU_1988	.....	L.....
MH496772_1_DOG_TH_2014	.....	S.....
MH496773_2_DOG_TH_2014	.....	S.....
MH496777_6_DOG_TH_2014	.....	S.....
MH496778_7_DOG_TH_2014	.....	S.....
MH496775_3_DOG_TH_2014	.....	S.....
KJ747372_2262_DOG_US_2013	.....	S.....
KJ747371_1941_FOX_US_2013	.....	SR.....
KJ466106_SY_RACCOONDOG_CN_2012	.....	SR.....
MH496775_4_DOG_TH_2014	.....	S.....
JN896331_PS_DOGV_CN_2010	.....	S.....
AB753775_AC96I_DOG_JP_2004	.....	S.....
MK431532_NTU_DOG_TW_2005	.....	S.....
KC427278_HEBEI_MINK_CN_2008	.....	S.....
MH496776_5_DOG_TH_2014	.....	S.....
KP765764_LN1_FOX_CN_2010	.....	S.....
KX347928_AH_DOG_CN_2015	.....	S.....
MH496779_8_DOG_TH_2014	.....	S.....
JX681125_HLJ1_FOX_CN_2006	.....	S.....
KP793921_GIANTPANDASX_CN_2014	.....	S.....
KP677502_LOUGUANTAI1_PANDA_CN	.....	S.....
KP765763_SD7_FOX_CN_2014	S.....	ST.....
KP738610_SD11_RACCOONDOG_CN_20	S.....	S.....
MH337872_SD16F_FOX_CN_2016	.....	S.....
KX499865_ZYL_FOX_CN_2015	.....	S.....
MF041963_CDV06_WOLF_ET_2016	.....	S.....
KJ848781_RDJL_RACCOONDOG_CN_20	.....	S.....
KX709880_HL001_DOG_CN_2012	.....	S.....
LC159587_HCM33_DOG_YN_2014	.....	SR.....
AB687720_CYN07DV_MACAQUE_JP_20	.....	I.....
KF856711_BJ01_MONKEY_CN_2006	.....	I.....
HM852904_MKYKMO8_MACAQUE_CN_20	.....	I.....
LC342298_RC13_RACCOON_JP_2016	.....	I.....
KJ994343_ZC_RACCOONDOGV_CN_201	L.....	G.....
KY971532_WT02_HYENA_SA_2017	.....	D.....
KY971528_WT01_DOG_SA_2016	.....	A.....
PC0046_SEAL_KZ_2000	S.....	S.....
PC0020_SEAL_KZ_2000	S.....	S.....
PC0021_SEAL_AZ_2000	S.....	S.....
MH316137_1747_DOG_IT_2018	.....	G.....

Figure 13 (cont.)

HM852904_MKYKM08_MACAQUE_CN_20	K.....M.....I.....R..F.HN
LC342298_RC13_RACCOON_JP_2016	I.....V.....R..F.HN
KJ994343_ZC_RACCOONDOGV_CN_201	DK.....I.....R..R..F.HN
KY971532_WT02_HYENA_SA_2017	R.....I..N
KY971528_WT01_DOG_SA_2016	S.....R.....I..N
PC0046_SEAL_KZ_2000	I.....R.....N
PC0020_SEAL_KZ_2000	I.....R.....N
PC0021_SEAL_AZ_2000	I.....R.....N
MH316137_1747_DOG_IT_2018	I.....F.....S
	650 660
AF378705_ONDERSTEEPOORT	TKVDPAPFKPDLTGTSTKSYVRS*
KY971531_OVI_SA_2017	*
MF926604_BJ16C9_DOG_CN_2017	R.....*
AF305419_ONDERSTEEPOORT	*
AF014953_ONDERSTEEPOORT	*
KY971529_BUCHAREST_SA_2017	*
JN896987_SNYDERHILL_1940	*
KM926612_CDLV_CN_1992	*
HM063009_SHUSKIY_MINK_KZ_1998	*
HM046486_PHOCACASPIAN2007_SEAL	*
S460_RACCOON_DE_2015	T.....*
S272_FOX_DE_2016	T.....*
S466_RACCOON_DE_2015	T.....*
AY386315_5804_DOGV_DE_1989	T.....*
MF437053_GABON_DOG_GA_2015	..R...T.....*
KM280689_251_DOG_UY_2012	T.....*
KX434626_LDMBTU2_BR_2013	T.....*
MH426739_LDMBTU1_FOX_BR_2014	T.....*
MH382872_LDMBTU5_BR_2013	T.....*
MH349541_LDMBTU3_BR_2013	..I..T.....*
AY466011_2654_RACCOON_US_1998	A...T.....*
AY443350_2601_RACCOON_US_2000	A...T.....*
EU716337_164071_DOG_US_2004	A...T.....*
AY649446_2689_RACCOON_US_2001	A...T.....*
AF164967_A7517_DOGV_US_1975	A...T.....*
KJ123771_171391513_DOG_US_2004	...A.T.....K.*
KU666057_RHODEISLAND_RACCOON_U	T.....*
KF640687_R252_DOGV_US_1974	T.....*
KU578257_SE_DOG_TZ_1994	T.....*
KU578256_SNP_LION_TZ_1994	T.....*
KU578255_SNP_HYENA_TZ_1994	T.....*
KU578254_SE_JACKAL_TZ_2011	LT.....*
KU578253_SE_DOG_TZ_2007	LT.....*
AB474397_007LM_DOG_JP_2004	T.....R.....*
AB475099_55L_DOG_JP_2009	T.....R.....*
AB476401_011C_DOG_JP_2004	T.....R.....*
AB490672_009LH_DOGH_JP_2004	T.....A.R.....*
AB490678_50CBLH_DOGH_JP_2009	T.....*
KF914669_2784_DOG_IT_2013	T.....A.....*
KX024709_12254_BADGER_IT_2015	T.....*
22458_DOG_SPA_2016	T.....*
KX774415_PT61_TIGER_RU_2004	T.....*
BAIKAL_SEAL_RU_1988	T.....*
MH496772_1_DOG_TH_2014	T.....A.....*
MH496773_2_DOG_TH_2014	T.....*
MH496777_6_DOG_TH_2014	T.....*
MH496778_7_DOG_TH_2014	T.....*
MH496775_3_DOG_TH_2014	T.....*
KJ747372_2262_DOG_US_2013	P...T.....*
KJ747371_1941_FOX_US_2013	P...T.....*
KJ466106_SY_RACCOONDOGV_CN_2012	T.....*
MH496775_4_DOG_TH_2014	T.....*
JN896331_PS_DOGV_CN_2010	T.....*
AB753775_AC96I_DOG_JP_2004	T.....*
MK431532_NTU_DOG_TW_2005	T.....*
KC427278_HEBEI_MINK_CN_2008	T...V.....*
MH496776_5_DOG_TH_2014	T.....*
KP765764_LN1_FOX_CN_2010	T.....*
KX347928_AH_DOG_CN_2015	T.....*
MH496779_8_DOG_TH_2014	T.....*
JX681125_HLJ1_FOX_CN_2006	T.....*
KP793921_GIANTPANDASX_CN_2014	..A..T.....*
KP677502_LOUGUANTAI1_PANDA_CN	T.....*

Figure 13 (cont.)

KP765763_SD7_FOX_CN_2014	T.....*
KP738610_SD11_RACCOONDOG_CN_20	T.....*
MH337872_SD16F_FOX_CN_2016	T.....*
KX499865_ZYL_FOX_CN_2015	T.....*
MF041963_CDV06_WOLF_ET_2016	T.....*
KJ848781_RDJL_RACCOONDOG_CN_20	T.....*
KX709880_HL001_DOG_CN_2012	T.....*
LC159587_HCM33_DOG_VN_2014	T.....*
AB687720_CYN07DV_MACAQUE_JP_20	T.....*
KF856711_BJ01_MONKEY_CN_2006	T.....*
HM852904_MKYKM08_MACAQUE_CN_20	T.....*
LC342298_RC13_RACCOON_JP_2016	P.....T.....*
KJ994343_ZC_RACCOONDOGV_CN_201	A.....T.....*
KY971532_WT02_HYENA_SA_2017	T.....*
KY971528_WT01_DOG_SA_2016	T.....*
PC0046_SEAL_KZ_2000	A..N.....*
PC0020_SEAL_KZ_2000	A..N.....*
PC0021_SEAL_AZ_2000	A..N.....*
MH316137_1747_DOG_IT_2018	T.....*

Figure 14

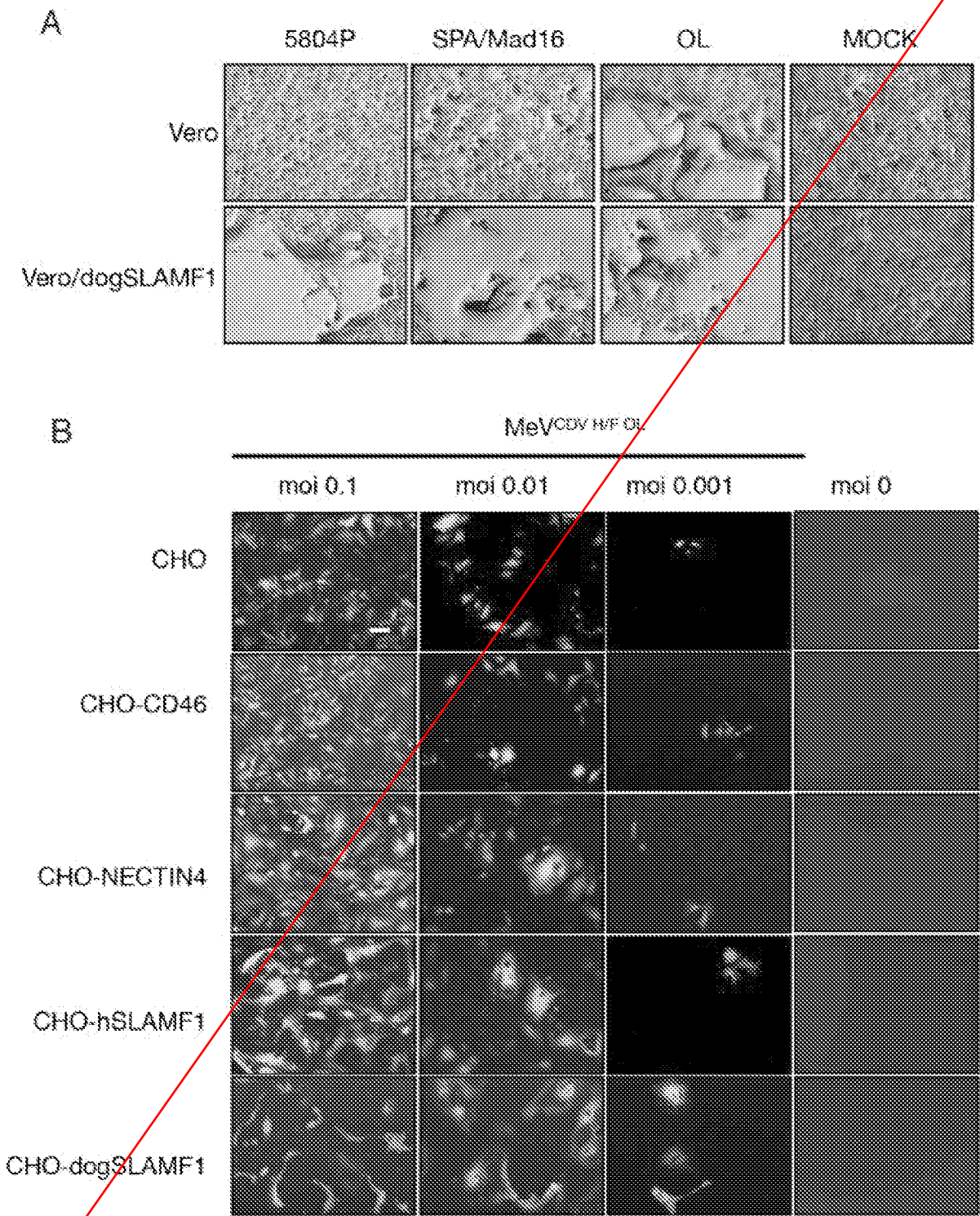


Figure 15

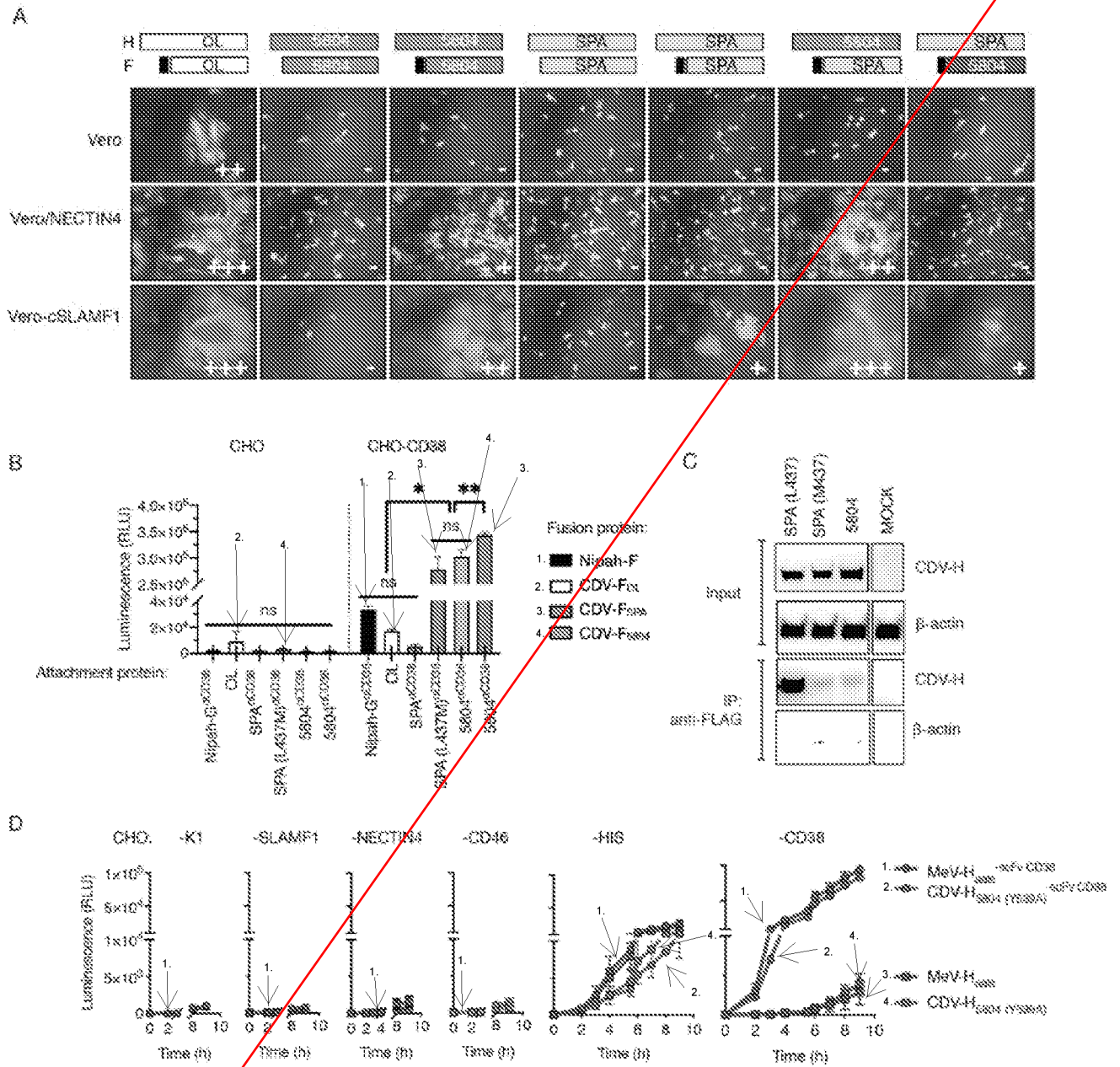


Figure 16

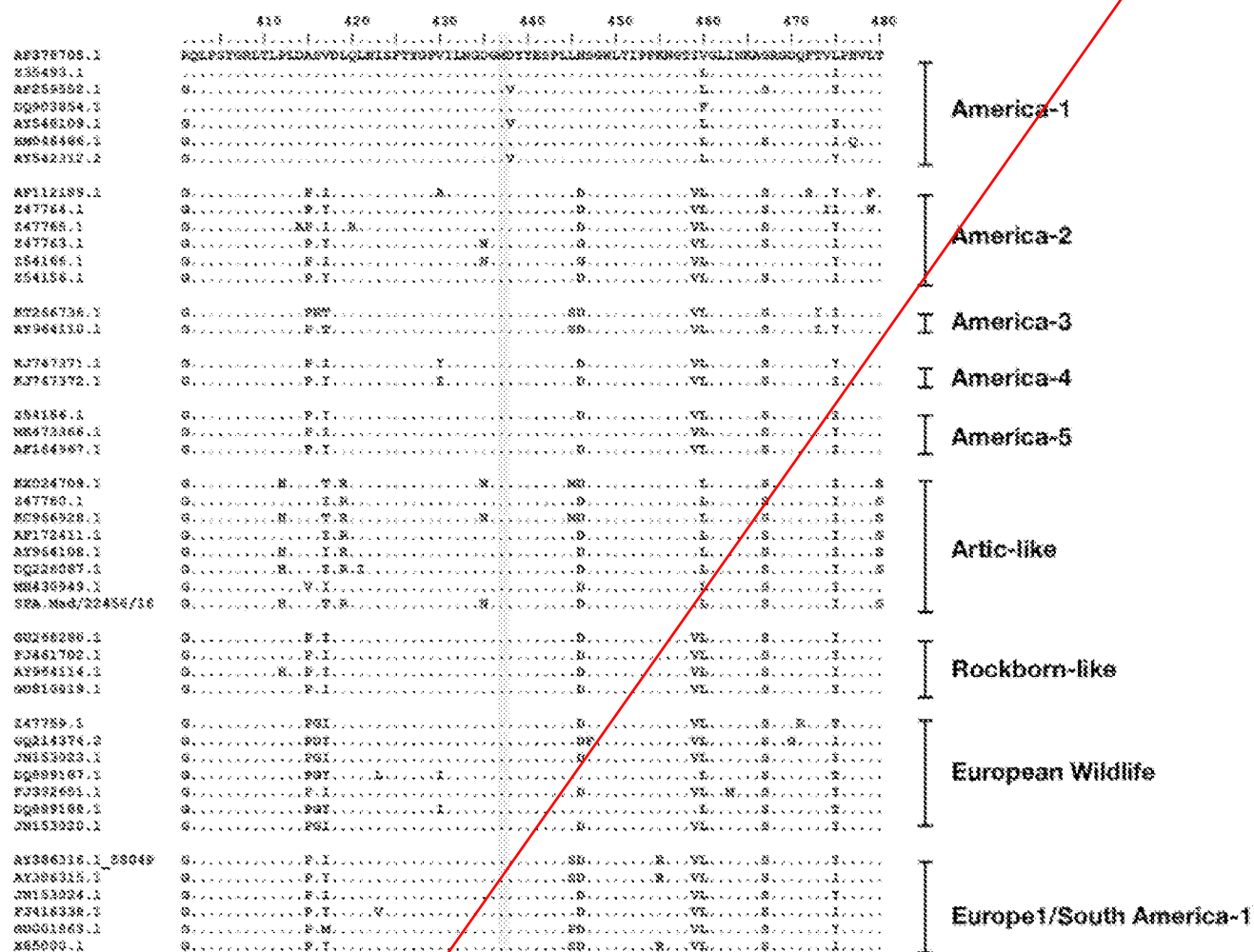


Figure 16 (cont.)

KJ3865300.1	G.....G.I.....T.SS.....A.....S.....I.....	South America-2
QJ3862652.1	G.....W.....P.I.....V.....SS.....L.....S.....I.....	
QV9995102.1	G.....P.I.....S.....SS.....Y.....I.....S.....I.....	
NN362798.1	G.....S.I.....T.SS.....A.....S.....I.....	
JN215478.1	G.....SS.....A.....S.....I.....	South America-3
RP935412.1	G.....S.I.....N.....S.SS.....S.....V.....S.....I.....	
RP935422.1	G.....P.I.....S.....SS.....Y.....V.....S.....I.....	
RP935451.1	G.....P.I.....S.....S.SS.....V.....S.....I.....	Africa-1
RY971538.1	G.....S.I.....D.....L.....S.....I.....	
QJ461739.1	G.....I.....D.....A.....S.....I.....	
QJ461696.1	G.....I.....S.....V.....S.....I.....	
RY971532.1	G.....I.....P.SP.....L.....S.....I.....	Africa-2
QV978254.1	A.I.P.H.....D.....N.....V.....S.....I.....	
QV9978255.1	I.P.I.....S.....D.....V.....S.....I.....	
QV978253.1	I.P.H.....D.....N.....V.....S.....I.....	
QV978254.1	A.I.P.H.....D.....N.....V.....S.....I.....	Asia-1
K8025273.2	G.....S.I.....SS.....V.....S.....T.....	
Q66755.1	G.....S.P.I.....D.....V.....V.....S.....T.....	
AB697720.2	G.....S.I.....Y.....D.....V.....S.....T.....	
QV66823.1	G.....P.I.....S.....V.....S.....T.....	
QJ732176.1	G.....P.I.....N.....V.....S.....H.....T.....	
QV96484.1	G.....S.I.....X.....D.....V.....S.....T.....	
QJ994343.1	G.....P.S.....S.....S.....V.....S.....T.....	
K8327872.1	G.....S.....S.....V.....V.....S.....Y.....	Asia-2
QV716073.1	V.....I.....S.....I.....S.....T.....	
AB478099.1	V.....I.....N.....D.....S.....N.....T.....	
QJ666161.1	V.....N.....S.....S.....S.....T.....	
QJ732170.1	V.....I.....D.....S.....I.....	
KY297453.12	V.....I.....N.....D.....S.....I.....	Asia-3
AB025278.1	V.....I.....N.....S.....S.....T.....	
AB212730.1	V.....I.....N.....D.....S.....I.....	Asia-4
QV743234.1	V.V.....SRI.....N.....D.S.....L.....S.E.....TS.....	
QV743938.1	V.V.....SRI.....S.....D.S.....L.....S.E.....TS.....	Asia-5
KJ488381.1	G.....P.I.....S.....S.....V.....S.....V.....	
KJ437986.1	G.....S.I.....D.....V.....S.....V.....	
NN496773.1	G.....P.I.....N.....S.....V.....S.....V.....	
RP964178.1	S.I.....G.....DY.....V.....S.....I.....	
RP964182.1	P.I.....G.....DY.....V.....S.....I.....	
RP964187.1	P.Y.....G.....DY.....V.....S.....I.....	
RP964181.1	S.I.....G.....DY.....V.....S.....I.....	
RP964185.1	GS.....P.I.....S.....G.....S.....V.....S.....I.....	
RP964186.1	S.P.I.....S.....D.....V.....S.....I.....	

Figure 17

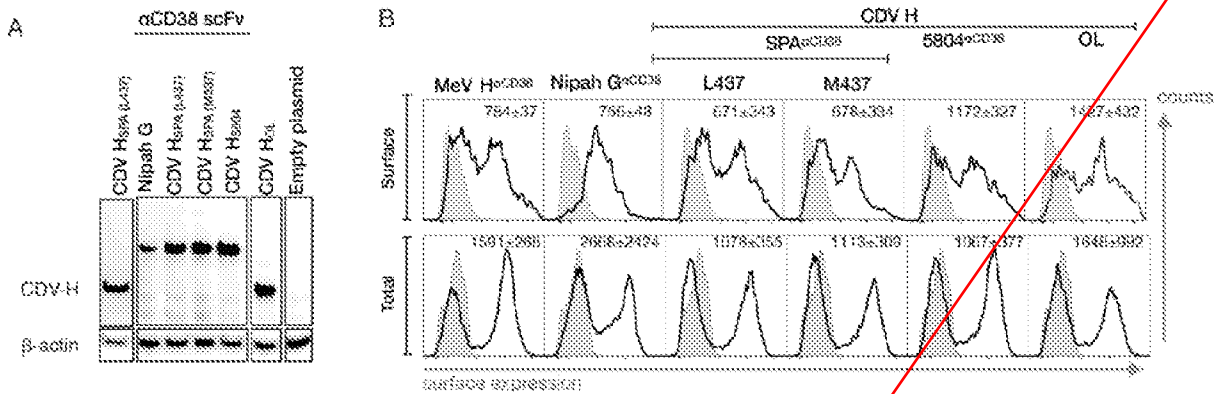


Figure 18

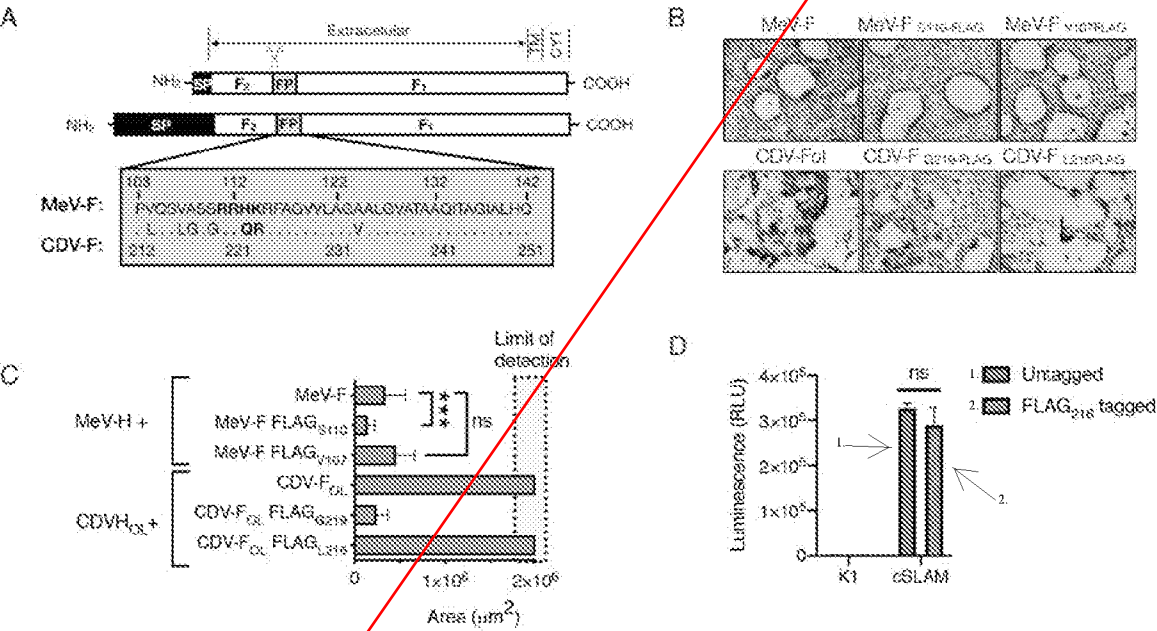


Figure 19

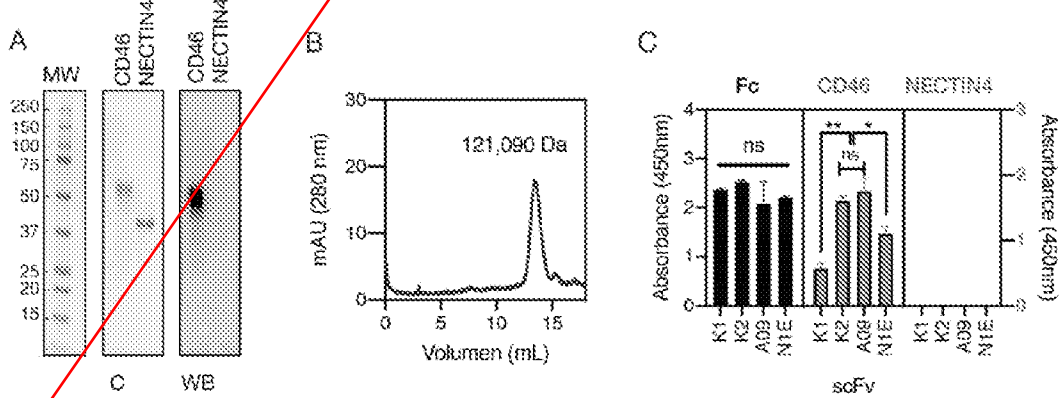


Figure 20

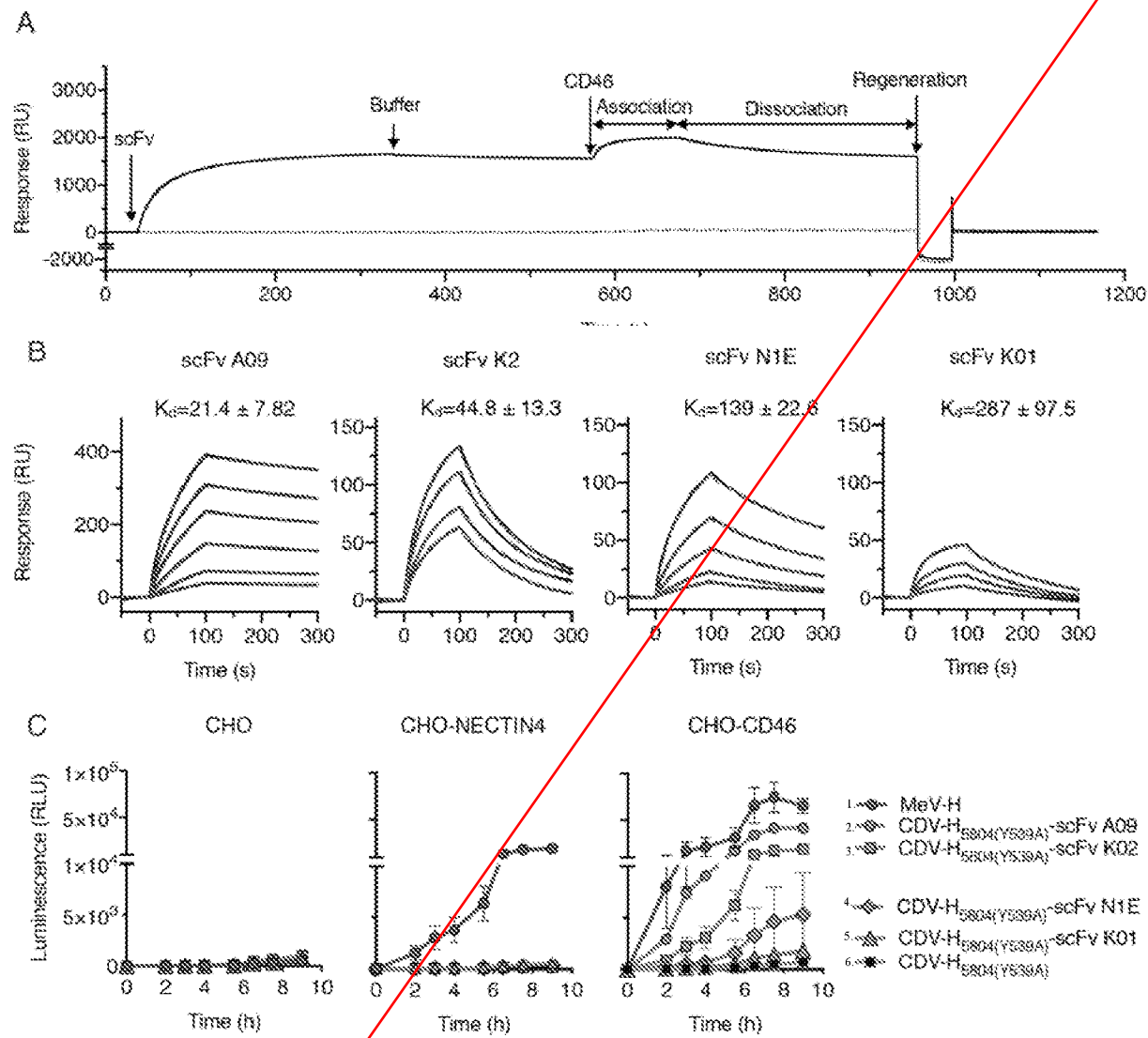


Figure 21

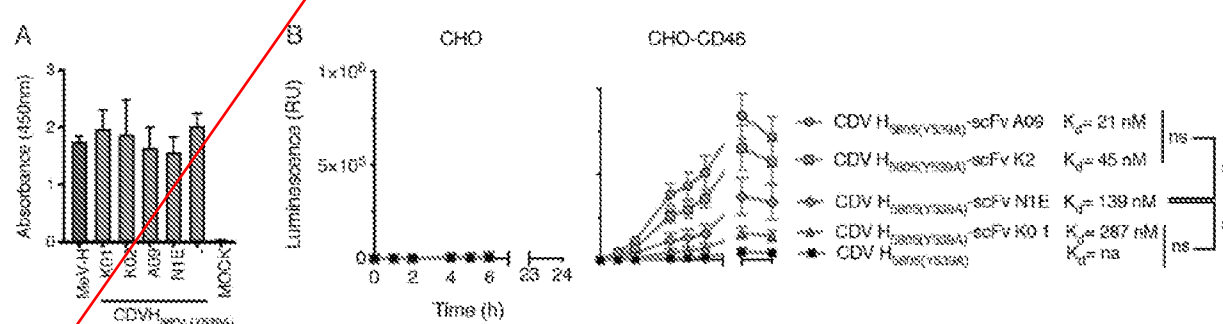


Figure 22

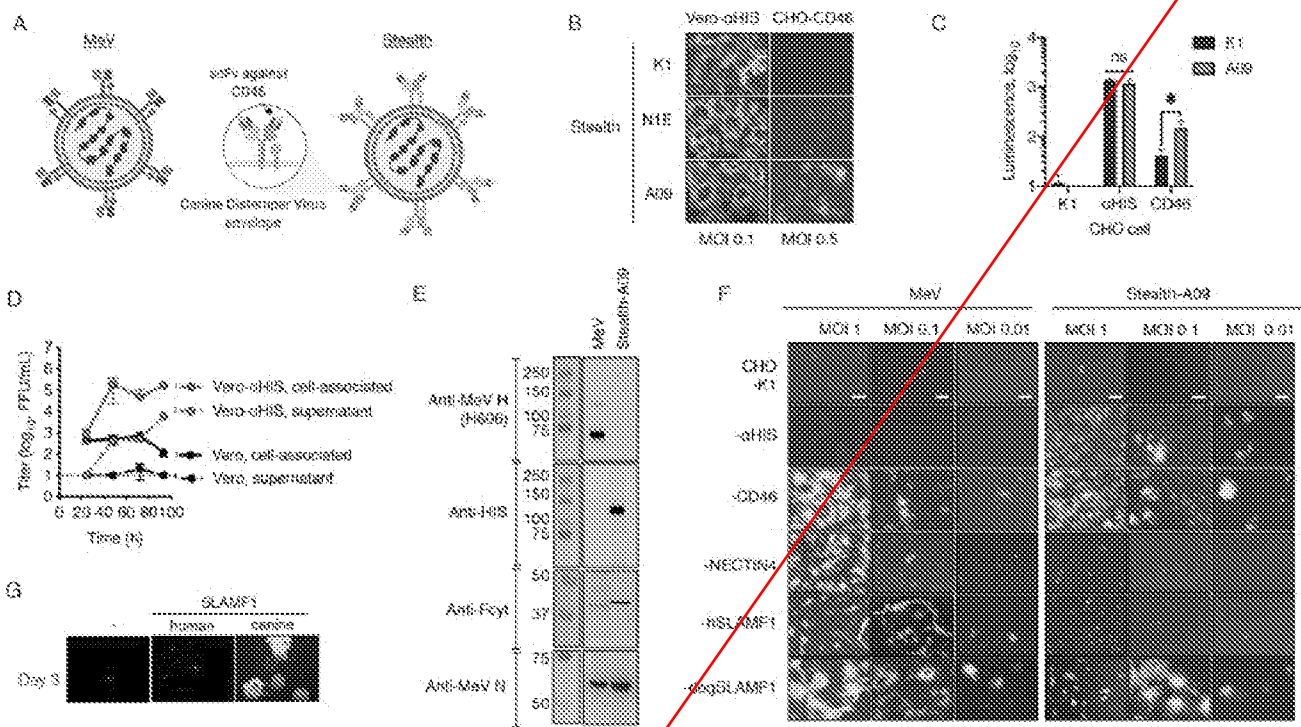


Figure 23

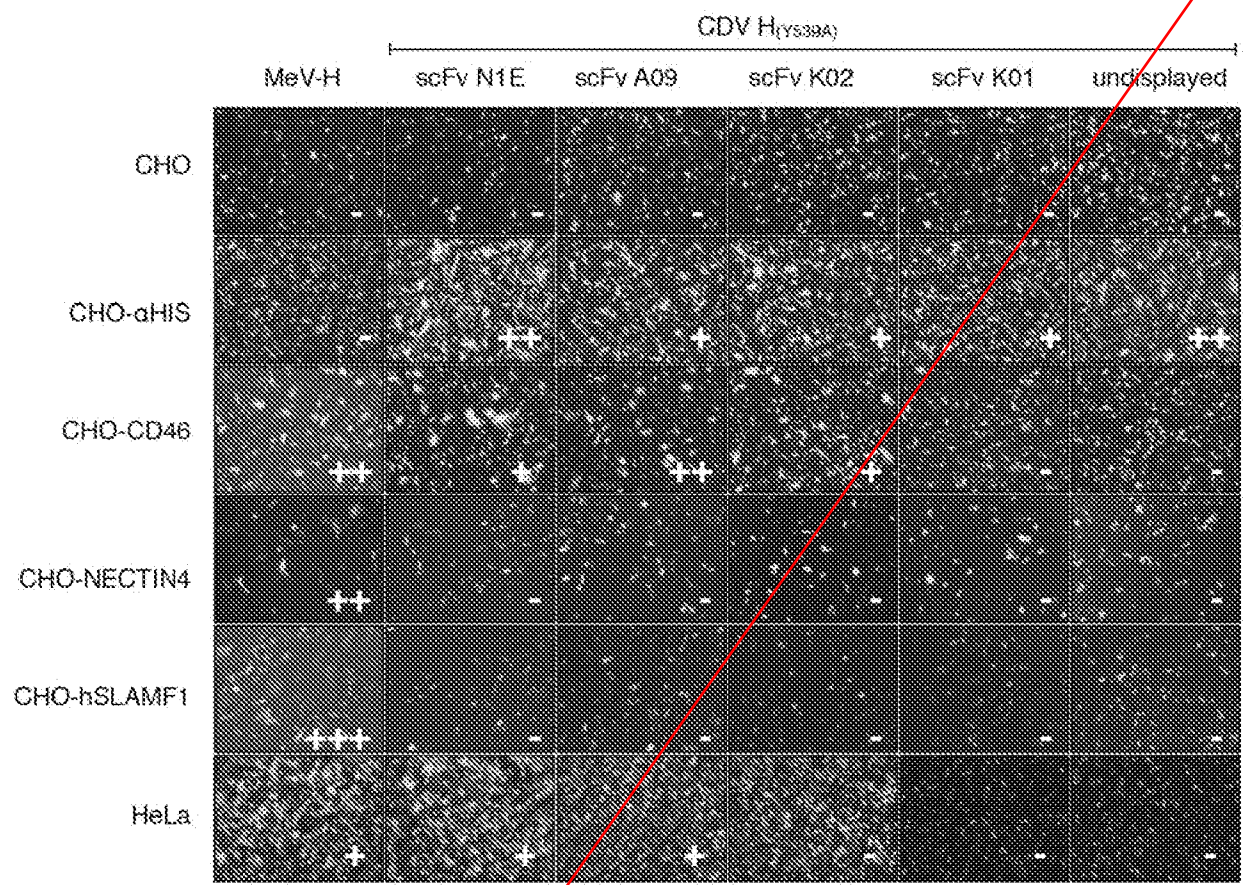


Figure 24

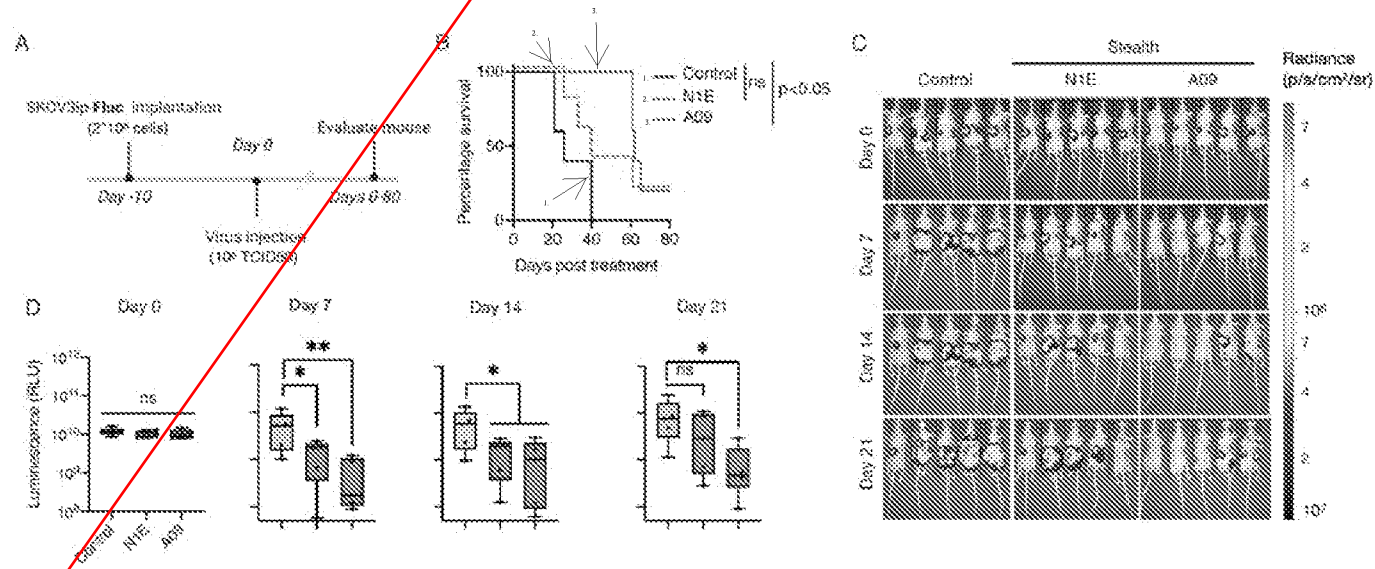


Figure 26

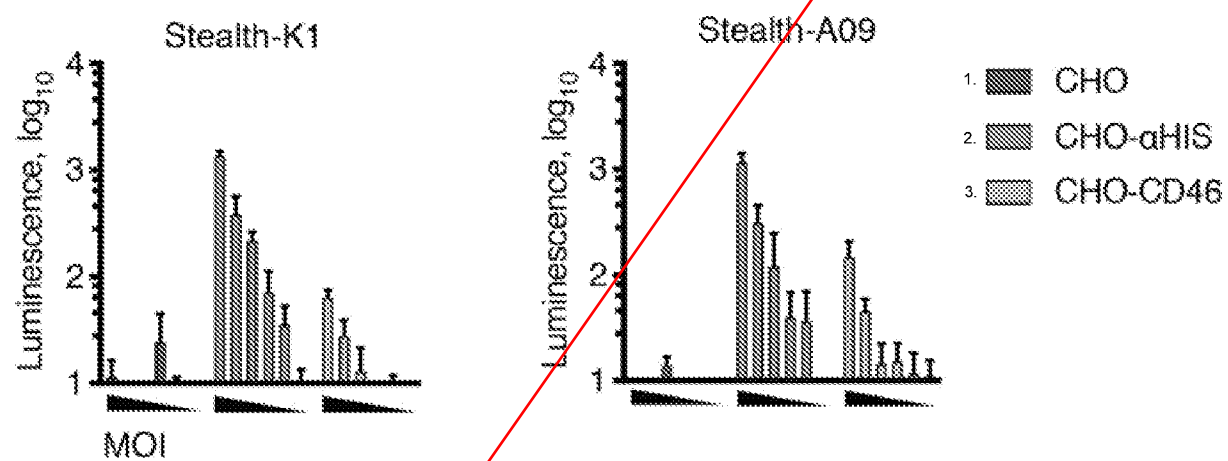
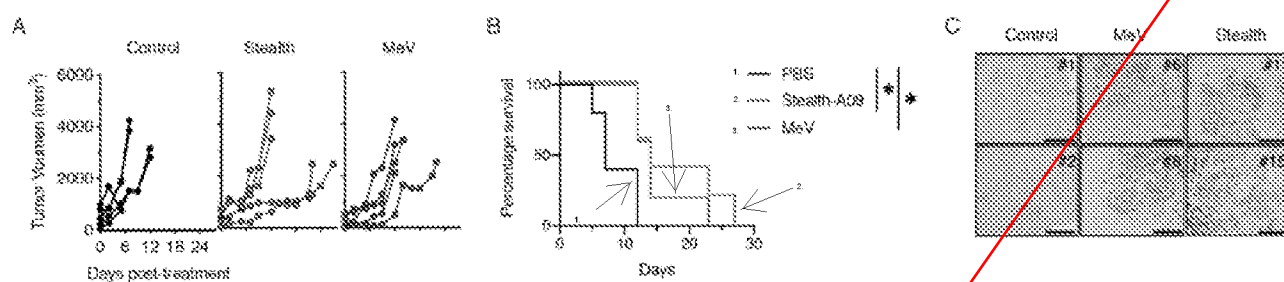


Figure 27

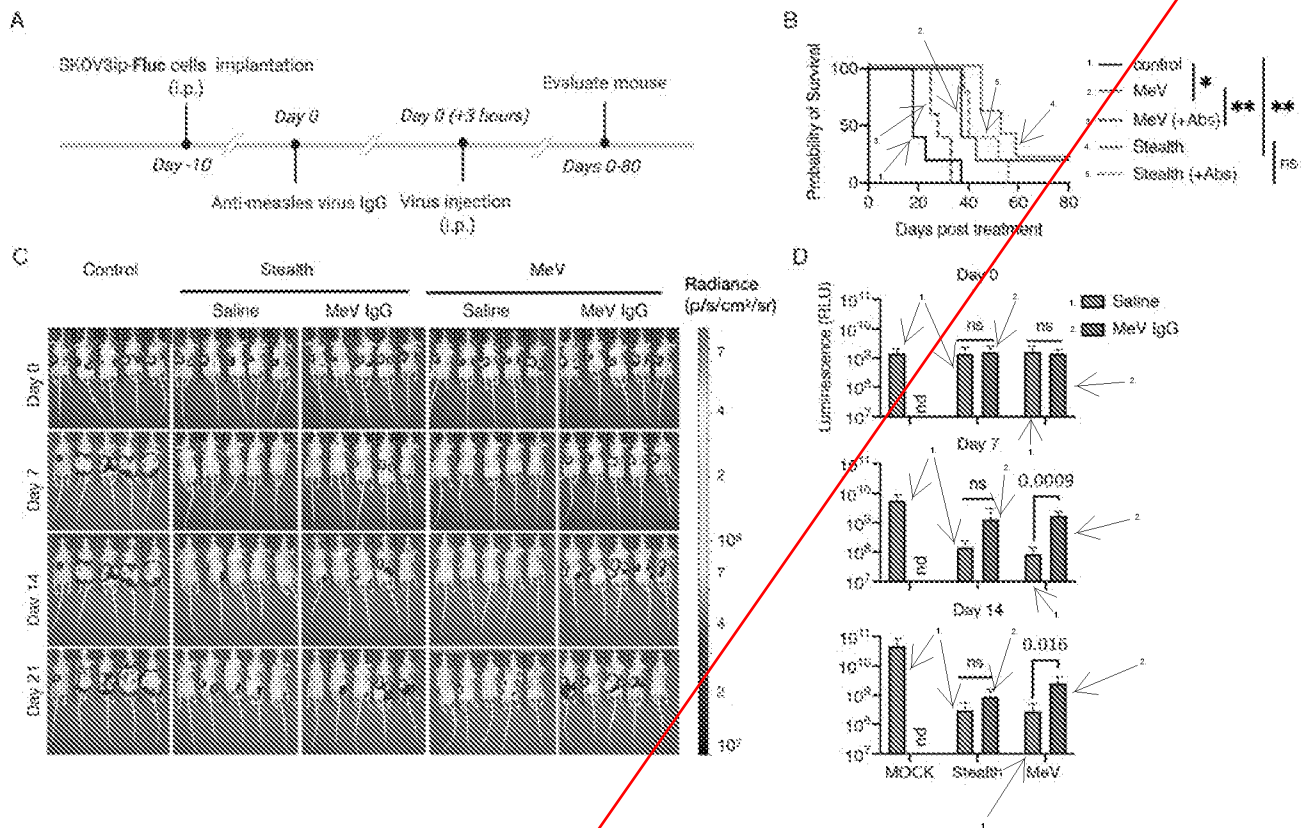
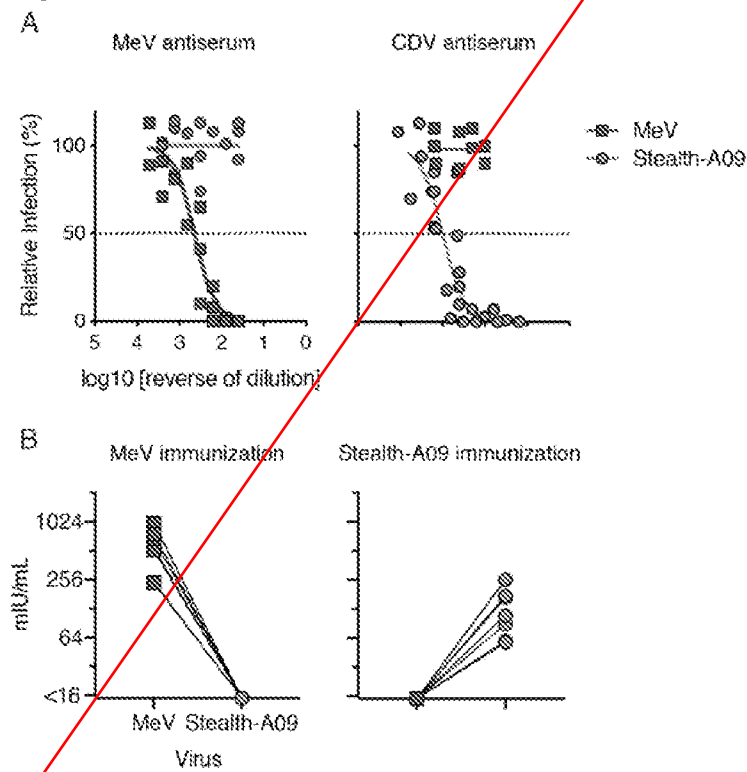


Figure 28



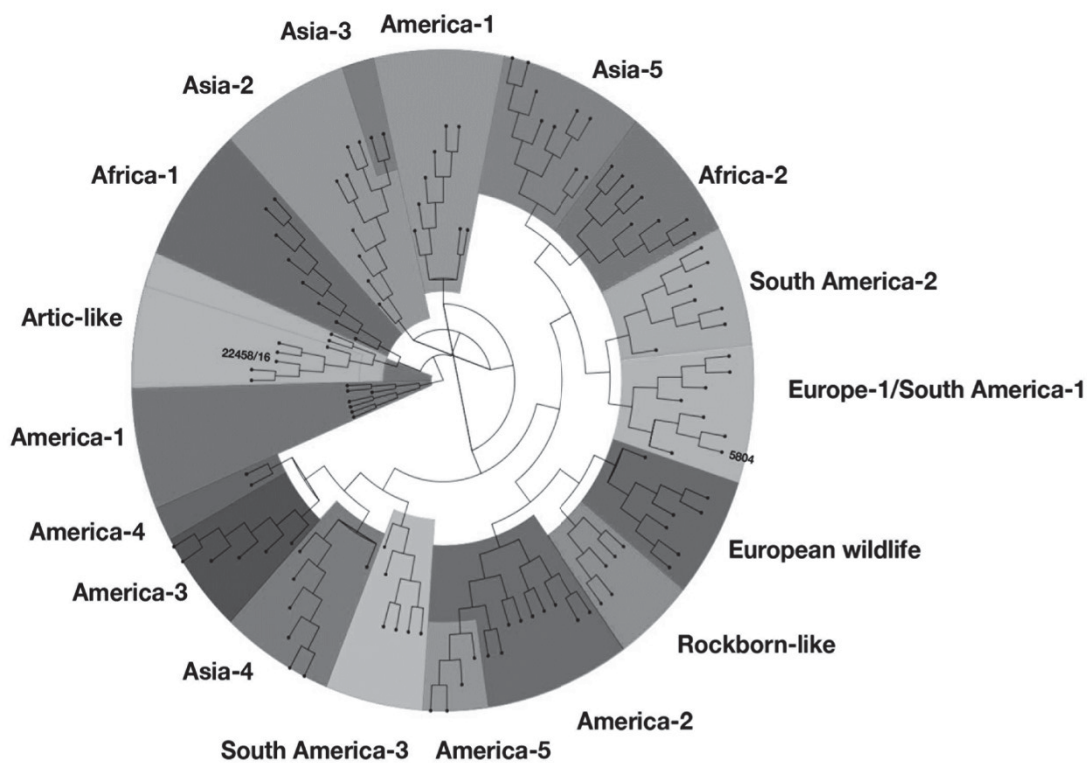


FIG. 1

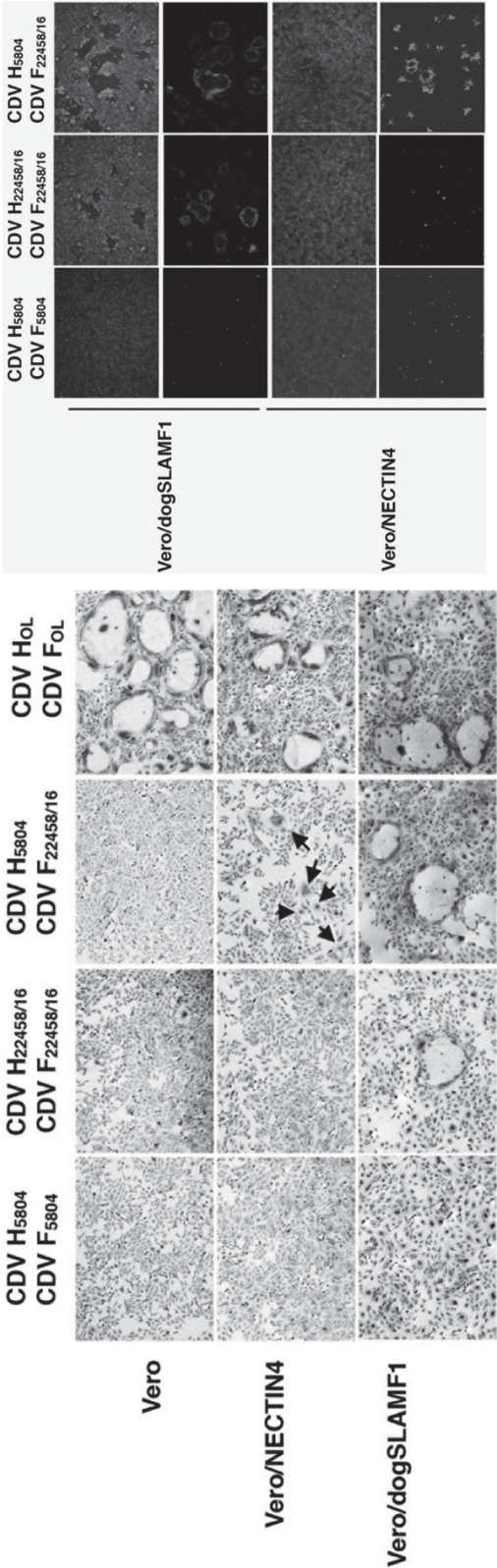


FIG. 2A

FIG. 2B

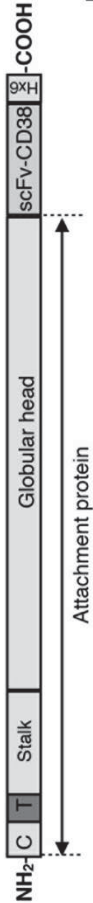


FIG. 2C

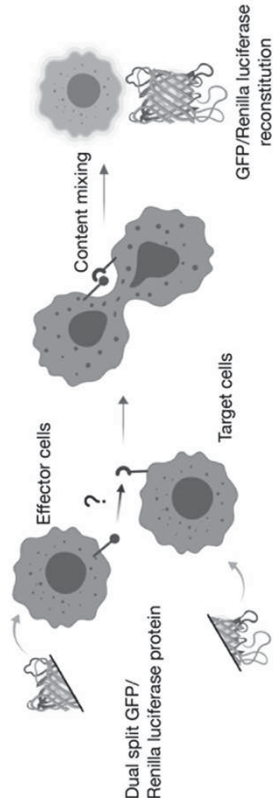


FIG. 2E

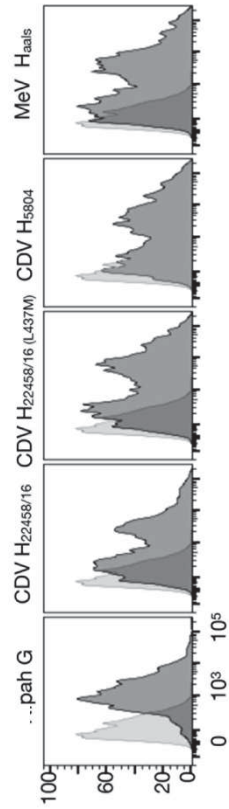


FIG. 2D

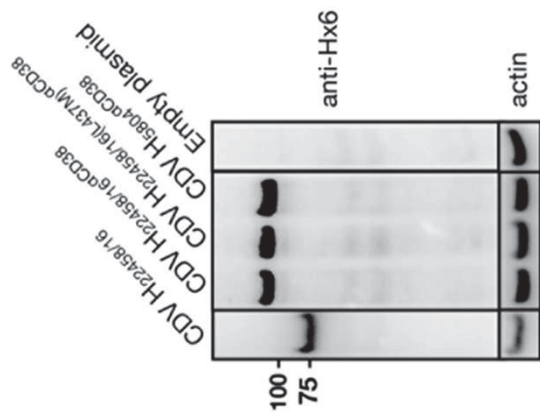


FIG. 2G

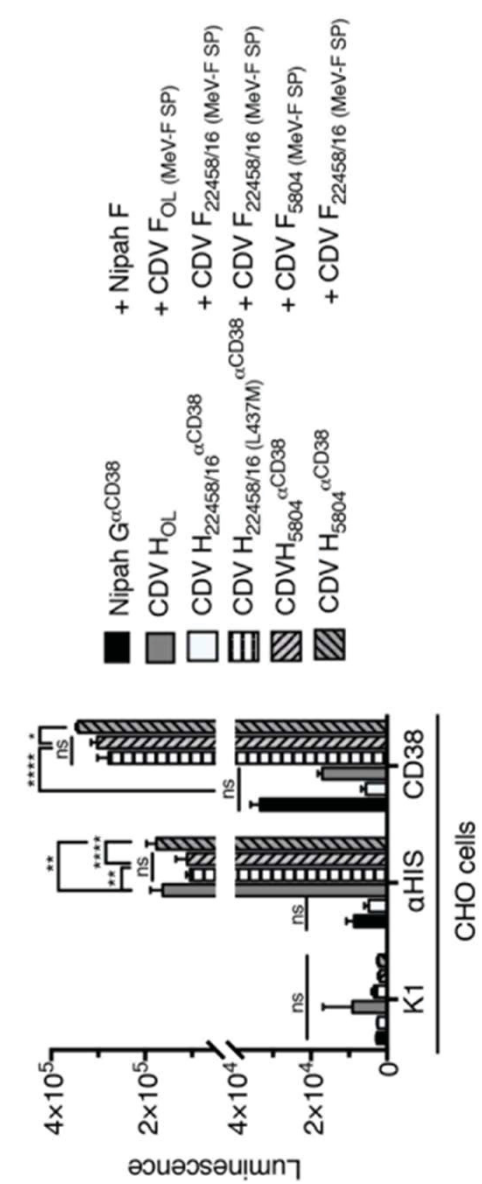


FIG. 2F

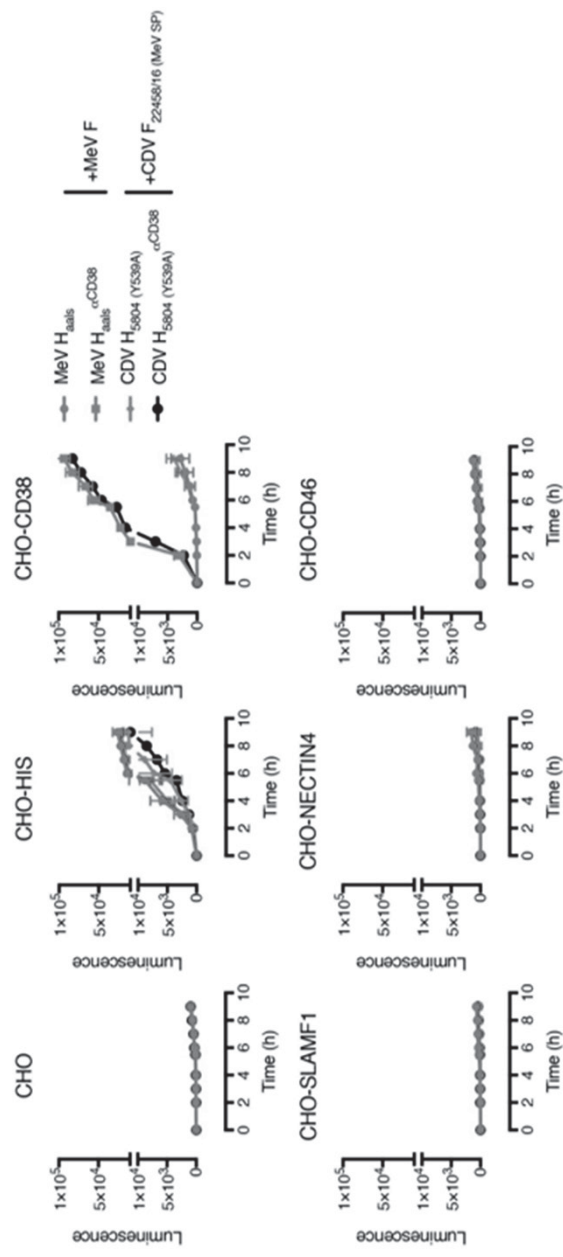


FIG. 2H

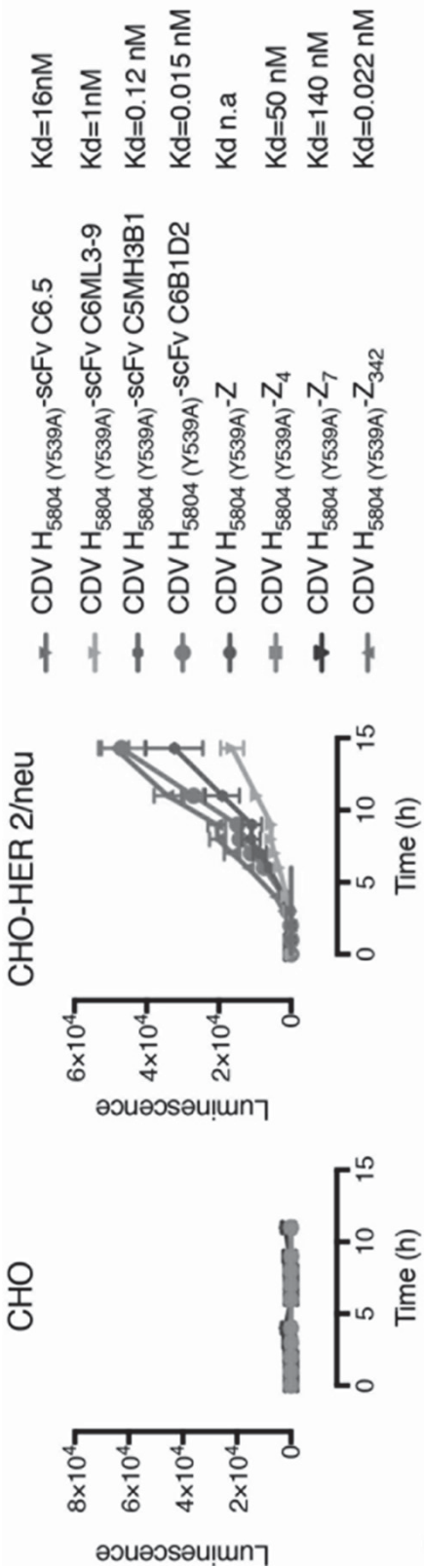


FIG. 2I

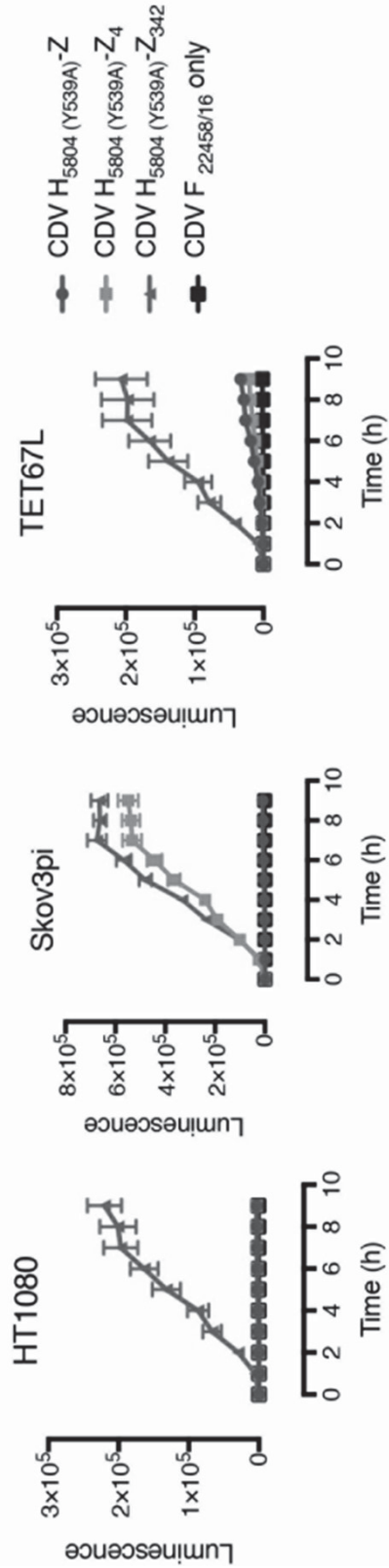


FIG. 2J

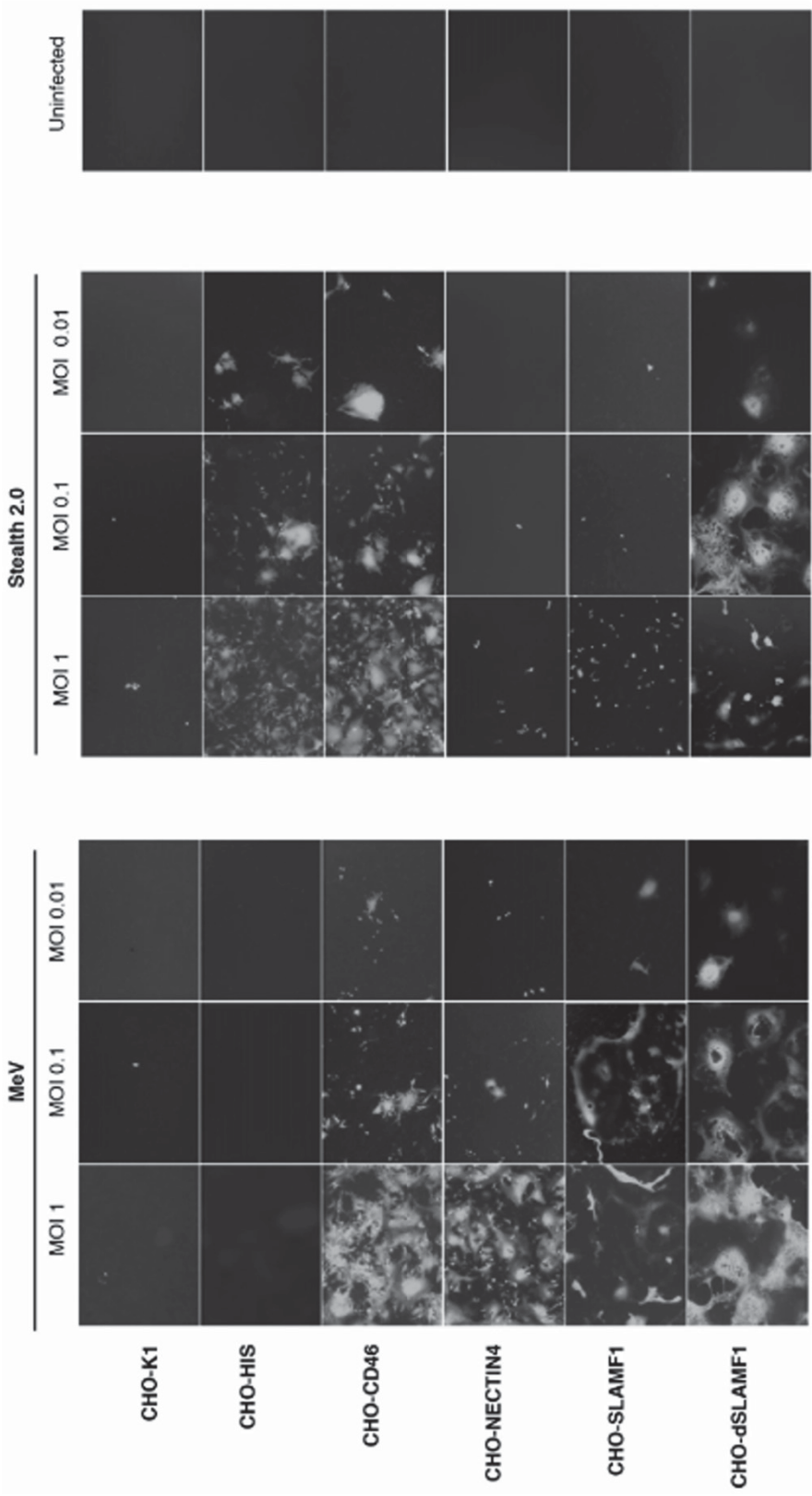


FIG. 3F

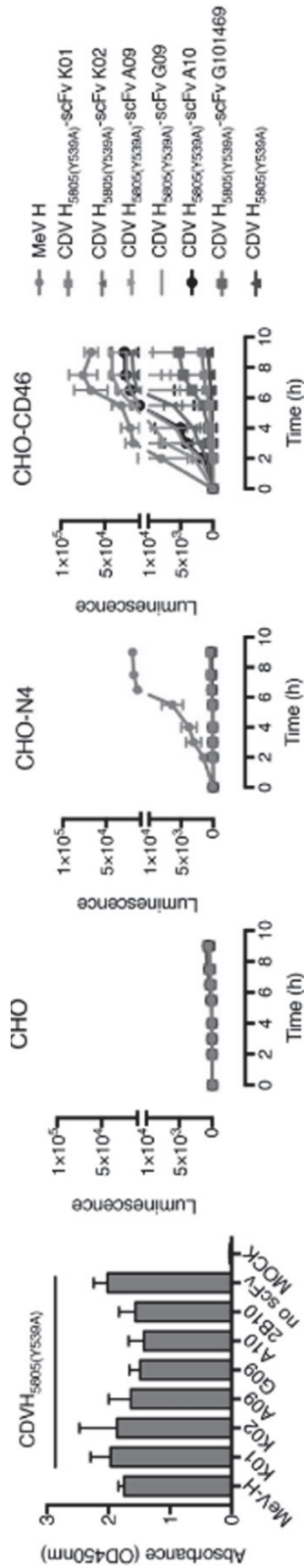


FIG. 3A

FIG. 3B

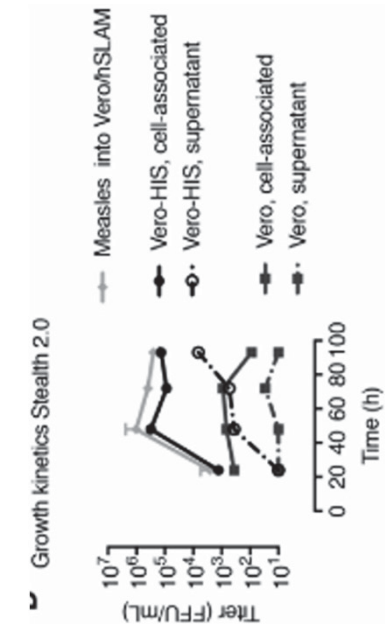


FIG. 3D

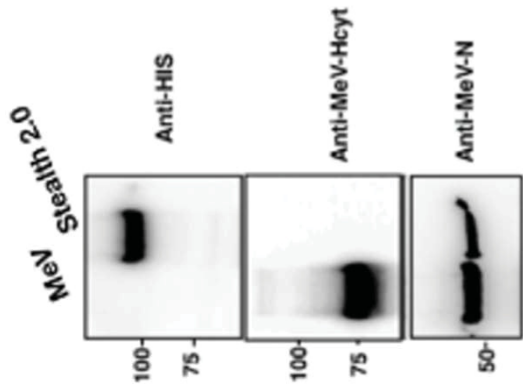


FIG. 3C

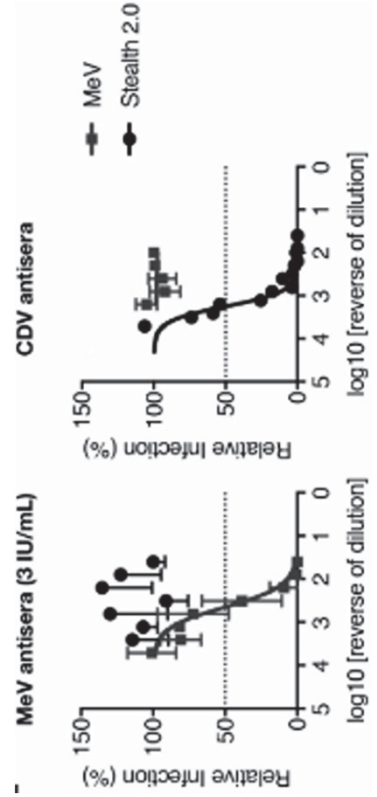


FIG. 3E

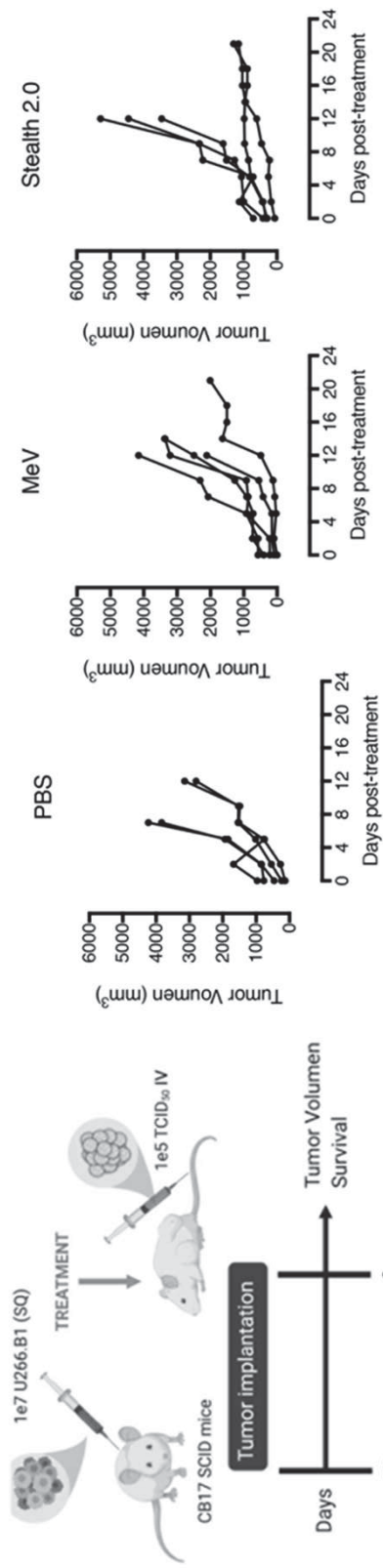
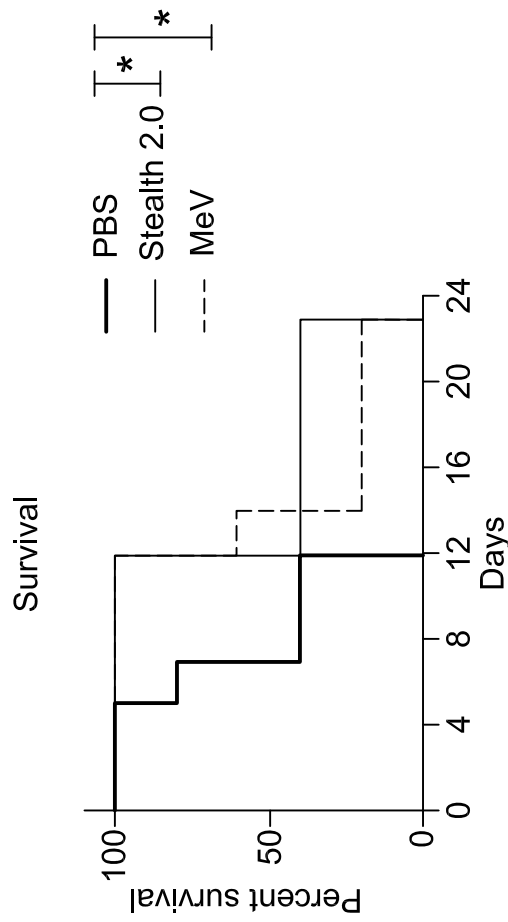


FIG. 4B

FIG. 4A



Treatment	Dose TCID ₅₀	#animals	Median survival	Log-rank test
PBS	-	5	7	
Stealth 2.0	1E+05	5	12	p=,0309
MeV	1E+05	5	14	p=,0181

FIG. 4C

Virus	Construct							Titer	
VSV-IFNβ-NIS	N	P	M	hIFNβ	G	NIS	L	1.7e10 TCID50/mL (clinical stock)	
VSV-CDV-FH-GFP	N	P	M	CDV-F	CDV-H	GFP	L	1.9e6 TCID50/mL	
VSV-CDV-FHaa-αEGFR-GFP	N	P	M	CDV-F	CDV-Haa	αEGFR	GFP	L	1.0e7 TCID50/mL
VSV-CDV-FHaa-αCD38-GFP	N	P	M	CDV-F	CDV-Haa	αCD38	GFP	L	1.0e6 TCID50/mL

FIG. 5

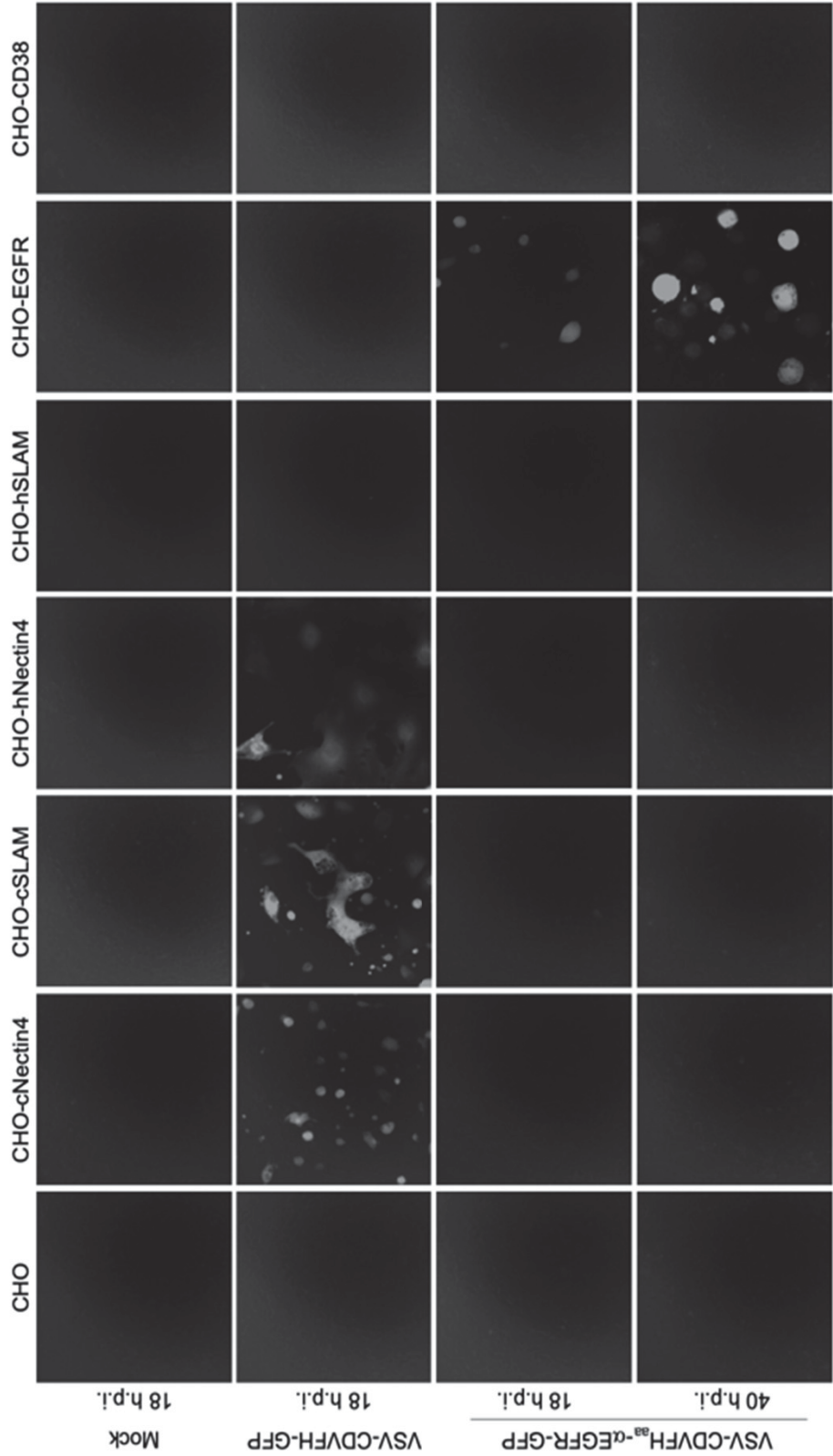


FIG. 6

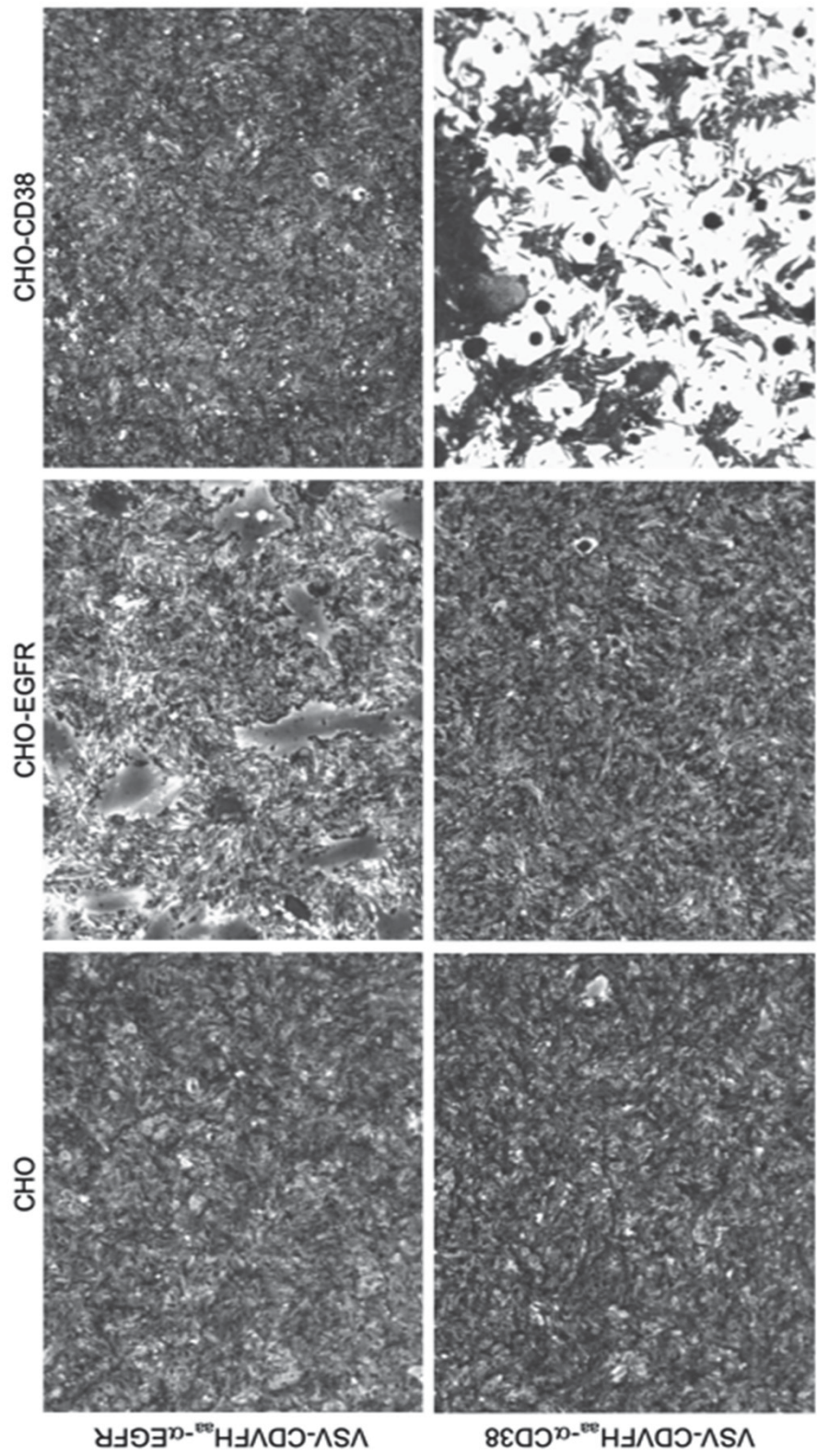
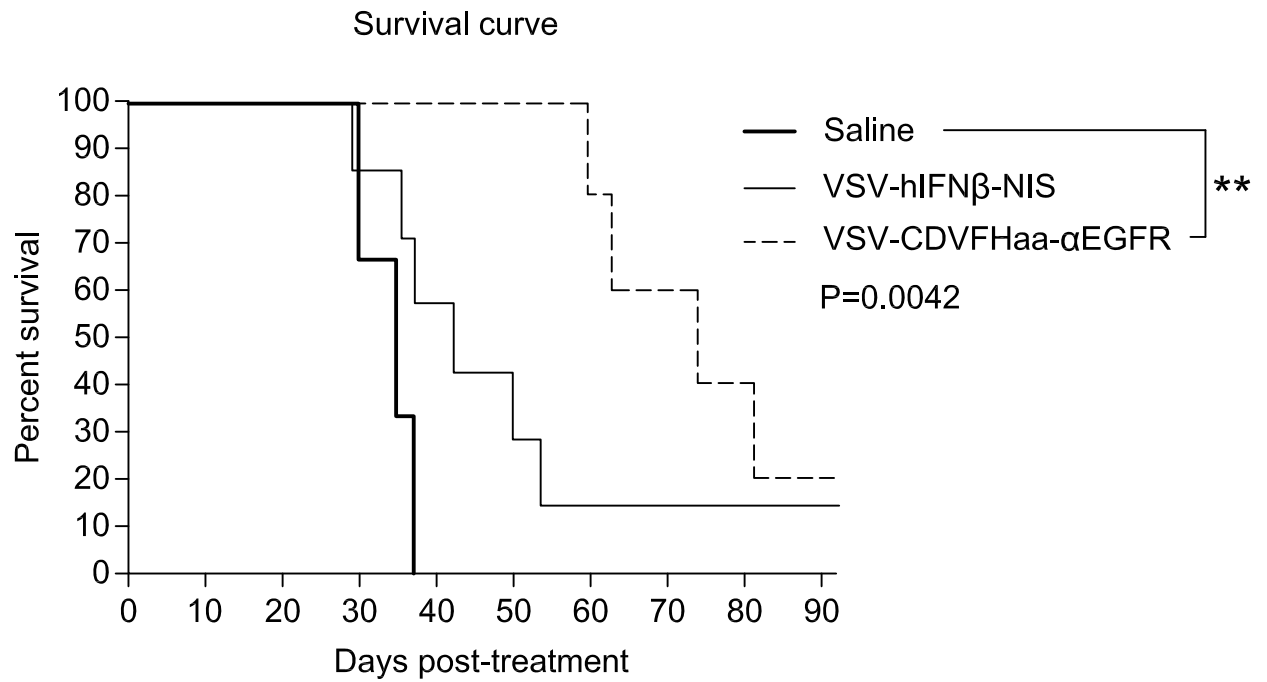


FIG. 7



Treatment	Dose TCID ₅₀ /ms	#animals/gr	Median survival
Saline	-	3	35
VSV-hIFNb-NIS	1e7	7	42
VSV-CDV FHaa-IEGS-aEGFR-dG	1e7	5	74

FIG. 8

FIG. 9

ATGCTCTCCTACCAAGACAAGGTGGGTGCCTTCTACAAGGATAATGCAAGAGCTAAT
TTGTCCAAGCTGTCCTTAGTGACAGAAGAGCAAGGGGGCAGGAGACCACCCTATTT
GCTGTTTGTCTTCTCATCCTACTGGTTGGAATCCTGGCCTTGCTTGCTATCACTGGA
GTTCGATTTCACCAGGTATCAATTAGCAATATGGAATTTAGCAGATTGTTGAAAGAG
GATATGGAGAAGTCAGATGCCGTACATCACCAAGTCATAGATGTCTTGACACCGCTC
TTCAAATTATTGGAGATGAGATTGGGTTACGGTTGCCACAAAACTAAACGAGAT
CAAACAATTTATCCTTCAAAGACTAACTTCTTCAATCCGAACAGGGAATTTCGACTT
CCGCGATCTCCACTGGTGCATTAATCCGCCTAGTAAGATCAAAGTGAATTTTACTAG
TACTGTGATACAATTGGGATCAGAAAATCCATTGCATTGGCAGCAAATCCCATCCT
TTTTTCAGCACTCTCCGGAGGCAGAGGTGACATATTCCCACCATACAGATGCAGTGG
AGCTACTACTTCAGTTGGCAAATCTTTCCCCCTATCAGTATCATTATCCATGTCTTTG
ATCTCAAGAACATCAGAGATAATCAATATGCTGACCTCTATCTCAGACGGAGTGTAT
GGTAAACTTATTTGCTAGTGCCTGATTATATTGAAGGGGAGTTCGACACGCAAAAG
ATTCGAGTCTTTGAGATAGGGTTCATCAAAAGGTGGCTGAATGACATGCCATTATTC
CAGACAACCAACTATATGATCCTCCCGGAGAATTCTAAAACCAAAGTATGTACTATA
GCAGTGGGCGAGTTGACACTGGCTTCCTTGTGTGTAGATGAGAGCACTGTATTATTA
TATCATGACAGCAATGATTCACAAGATGGTATTCTAGTAGTGACGCTGGGAATCTTT
GGGGCAACACCTATGGATCAAGTCGAAGAGGTGATACCTGTCGCTCACCCATCAGT
AGAAAAAATACATATAACAAATCACCGTGGTTTCATAAAAGATTCGGTAGCAACCT
GGATGGTGCCTGCATTGGTCTCTGAGAACCTAGAGGAACAAAAAATTGTCTGGAG
TCGGCTTGTCAAAGAAAATCCTACCCTATGTGCAACCAAACATCATGGGAACCCTTT
GGAGGAGGACAGTTGCCATCTTATGGGCGGTTGACGTTACATCTAGATGCAAGCACT
GACCGTCAACTTAACATATCATTTACGTACGGTCCGGTTATACTGAATGGAAATGGT
ATGGATTATTATGAAAGCCCACTTTTGGACTCCGGATGGCTTACCATTCTCCTAAG
AATGGAACAATTCTTGGATTGATAAACAAAGCAAGTAGAGGAGACCAGTTCACTGT
GATCCCTCATGTGTTGTCATTTGCGCCCAGGGAATCAAGTGGAACTGTTATTTACC
TATTCAAACATCCCAGATTATGGATAAAGATGTCCTTACTGAGTCTAATTTAGTTGT
GTTGCCTACACAGAATTTTAGATATGTCATAGCAACATATGATATATCCCGAAACGA
TCATGCGATTGTTTATTATGTTTATGACCCAATCCGGACGATTTCTTATACGTACCCA
TTTAGACTAACTACCAAGGGTAGATCTGATTTCTAAGGATTGAATGTTTTGTGTGG
GATGACGACCTGTGGTGTACCAATTTTACAGGTTTCGAGGCTGACATCACCAACTCT
ACAACCAGTGTTGAGAATTTAGTCCGTATAAGATTCTCCTGTAACCGTTCAAAACCT
TGA (SEQ ID NO:1)

FIG. 9 (con't)

MLSYQDKVGAFYKDNARANLSKLSLVTEEQGGRRPPYLLFVLLILLVGILALLAITGVRF
HQVSISNMEFSRLLKEDMEKSDAVHHQVIDVLTPLFKIIGDEIGLRLPQKLNEIKQFILQK
TNFFNPNREFDFRDLHWCINPPSKIKVNFTSYCDTIGIRKSIALAANPILFSALS GGGRGDIFP
PYRC SGATT SVGKSFPLSVLSMSLSIRTSEIINMLTSISDGVYGKTYLLVPDYIEGEFDTQ
KIRVFEIGFIKRWLNDMPLFQTTNYMILPENS KTKVCTIAVGELTLASLCVDESTVLLYH
DSNDSQDGILVVTLGIFGATPMDQVEEVIPVAHPSVEKIHITNHRGFIKDSVATWMVPAL
VSENLEE QKNCLESACQRKSYPMC NQTSWEPFGGGQLPSYGR LTLHLDASTDRQLNISF
TYGPVILNGNGMDYYESPLLD SGWLTIPPKN GTILGLINKASRGDQFTVIPHVLSFAPRES
SGNCYLPIQTSQIMDKDVLTESNLVVLPTQNFRYVIATYDISRNDHAIVYYVYDPIRTISY
TYPFRLTTKGRSDFLRIECFVWDDDLWCHQFYRFEADITNSTTSVENLVRIRFSCNRSKP
(SEQ ID NO:2)

FIG. 10

ATGCACAAGGAAATCCCCGAAAAATCCAGAACCCGAACACACACCCAACAAGACCT
CCCCCAACAAAAAAGCACCGAATACACCGAGATCAAGACCTCCCGAGCACGACACG
GCATAACGCCAGCTCAGCGATCCACGCACTATGGTCCTCGAACATTGGACAGGCTC
GTCTGCTACATTATGAACAGAGCCATGTCTTGCAAGCAAGCCAGCTACAGATCGGAT
AACATCCCAGCTCACGGAGACCACGAGGGTGTGTCCATCACACACCAGAGAGTGT
CTCCCAAGGAGCGAGATCCCAGCTCAAGAGGGCGGACTTCCAATGCAATCAACTCAG
GATTTTCAGTACATCTGGTTAGTCCTGTGGTGCATCGGAATAGCCAGTCTCTTTCTTTG
TTCTAAGGCTCAGATACATTGGAATAATTTATCAACTATTGGGATCATCGGGACTGA
CAGTGTCCATTATAAGATCATGACTAGGCCAGCCACCAGTACTTGGTCATAAACT
AATGCCTAATGTTTTCACTCATAGATAATTGTACCAAAGCAGAATTAGGTGAGTATGA
GAAATTATTAAATTCAGTCCTCGAACCAATCAACCAAGCTTTGACTCTAATGACCAA
GAATGTGAAGCCTCTACAGTCAGTAGGGTCAGGTAGGAGACAGAGGCGTTTTGCAG
GAGTGGTGCTTGCAGGTGCAGCTTTAGGAGTGGCCACTGCTGCACAAATCACTGCAG
GGATAGCTTTACATCAATCCAACCTCAATGCTCAAGCAATCCAATCTCTGAGAACTA
GCCTTGAACAGTCCAACAAGGCTATAGAAGAAATTAGGGAGGCAACCCAGGAAACC
GTCATTGCCGTTTCAGGGAGTCCAGGATTACGTCAATAATGAACTCGTCCCTGCTATA
CAACATATGTCGTGTGAATTAGTTGGGCAGAGATTAGGGTTAAAATTGCTTAGGTAT
TATACCGAGTTGTTGTCAATATTTGGCCCGAGTTTACGTGATCCTATTTTCAGCCGAGA
TATCAATTCAAGCACTGAGTTATGCTCTTGGGGGAGAAATTCATAAGATACTTGAGA
CGTTGGGGTATTCTGGAAATGATATGATTGCAATTTTGGAGAGTCGGGGGATAAAA
ACAAGAATAACTCATGTTGATCTCCCCGGGAAATTTATCATCTTAAGTATCTCATAC
CCAACCTTTATCAGAAGTCAAGGGGGTTATAGTCCACAGACTGGAAGCAGTTTCTTAT
AACATAGGGTCACAAGAGTGGTACACCACTGTCCCGAGGTATGTTGCAACTAATGG
TACTTAATATCCAATTTTCGATGAGTCATCCTGTGTATTTCGTCTCAGAATCAGCCATT
TGTAGCCAGAACTCCCTATACCCCATGAGCCCACTTCTACAACAATGCATTAGGGGC
GACACTTCATCTTGTGCTCGGACCTTGGTGTCTGGAACCATGGGCAATAAATTTATT
CTGTCAAAGGCAATATCATCGCAAATTGTGCTTCTATACTATGTAAGTGTTATAGC
ACAAGCACAATTATCAATCAGAGTCCTGATAAGTTGCTGACCTTTATTGCCTCCGAT
ACATGCCCAGTGTGAAATAGATGGTGTAAACCATCCAGGTTGGAGGCAGGCAATA
CCCTGATATGGTATACGAAAGCAAAGTTGCCCTAGGCCCTGCTATATCACTTGAGAG
GCTAGATGTAGGTACAAATTTAGGGAACGCCCTTAAGAACTGGATGATGCTAAGG
TACTGATAGACTCATCTAATCAGATCCTTGAGACGGTTAGGCGCTCTTCCTTTAATTT
TGGCAGTCTCCTCAGCGTTCCTATATTAAGCTGTGCAGCCCTGGCTTTGTTATTGCTG
ATTTACTGCTGTAAAAGACGCTATCAACAGACACTCAAGCGGAATACTAAGGTCTGA
TCCGACATTTAAACCTGATCTGACTGGGACTTCTAAATCCTATGTAAGATCACTCTG
A (SEQ ID NO:3)

FIG. 10 (con't)

MHKEIPEKSRTRTHTQQDLPQQKSTEYTEIKTSRARHGITPAQRSTHYGPRTLDRLVCI
MNRAMSCCKQASYRSDNIPAHGDHEGVVHHTPESVSQGARSQKRRTSNAINSGFQYIW
LVLWCIGIASLFLCSKAQIHWNNLSTIGIIGTDSVHYKIMTRPSHQYLVIKLMPNVSLIDN
CTKAELGEYEKLLNSVLEPINQALTLMTKNVKPLQSVGSGRRQRRFAGVVLAGAALGV
ATAAQITAGIALHQSNLNAQAIQSLRTSLEQSNKAIEEIREATQETVIAVQGVQDYVNE
LVPAIQHMSCELVGQRLGLKLLRYYTELLSIFGPSLRDPISAEISIQALSIALGGEIHKILET
LGYSGNDMIAILESRIKTRITHVDLPKGFIILSISYPTLSEVKGIVVHRLEAVSYNIGSQE
WYTTVPYRYVATNGYLISNFEDESSCVFVSESAICSQNSLYPMSPLLQQCIRGDTSSCARTL
VSGTMGNKFILSKGNIIANCASILCKCYSTSTIINQSPDKLLTFIASDTCPLVEIDGVTIQVG
GRQYPDMVYESKVALGPAISLERLDVGTNLGNALKKLDDAKVLIDSSNQILETVRRSSF
NFGSLLSVPILSCAALALLLIYCKKRRYQQTLKRNTKVDPTFKPDLTGTSKSYVRSL
(SEQ ID NO:4)

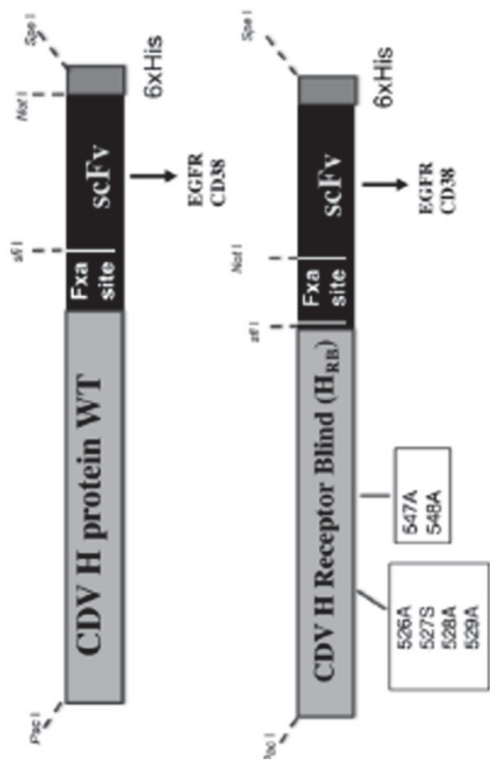


FIG. 11A

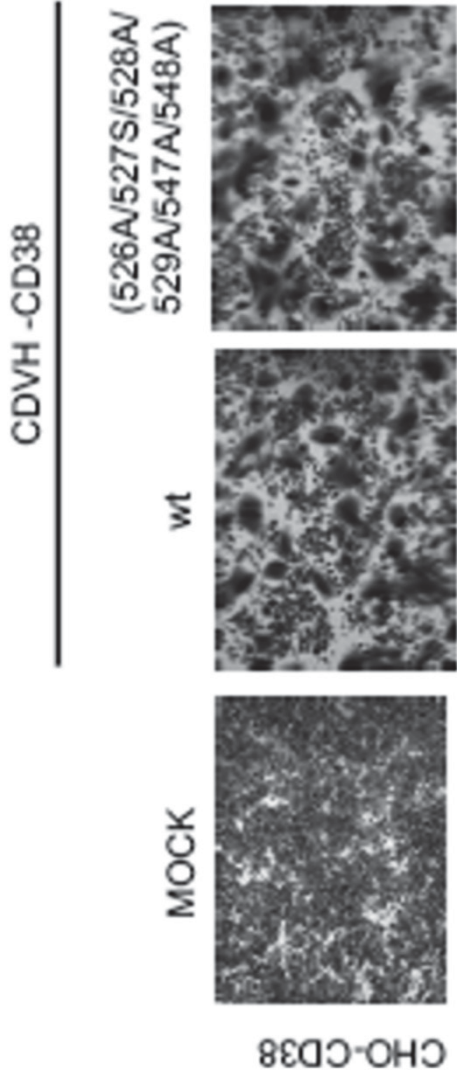


FIG. 11B

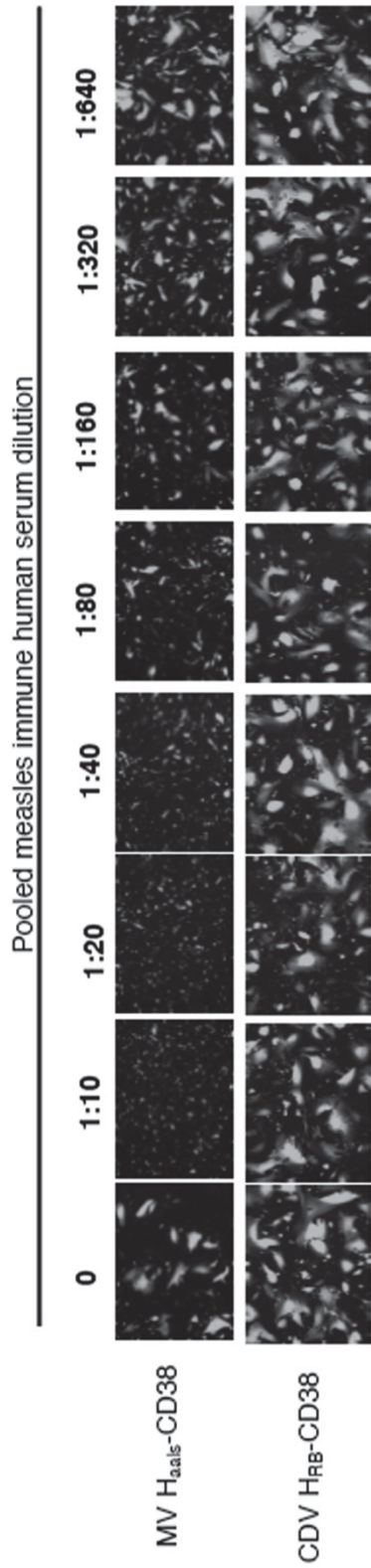


FIG. 11C

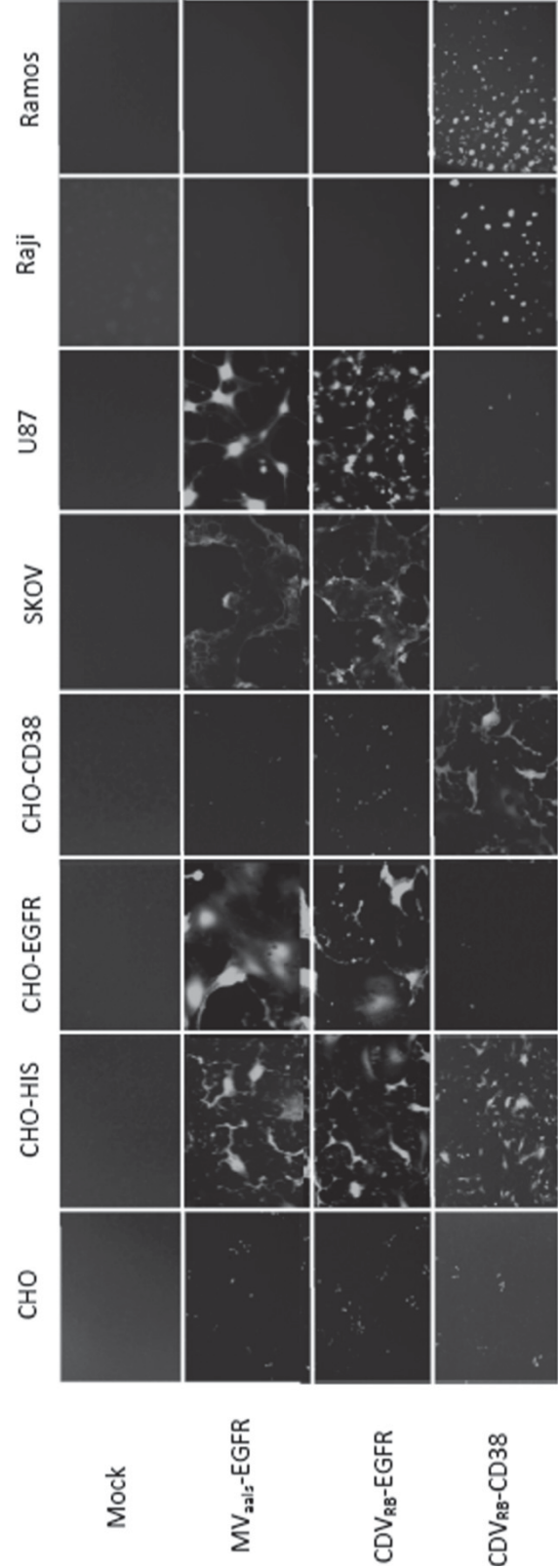


FIG. 11D

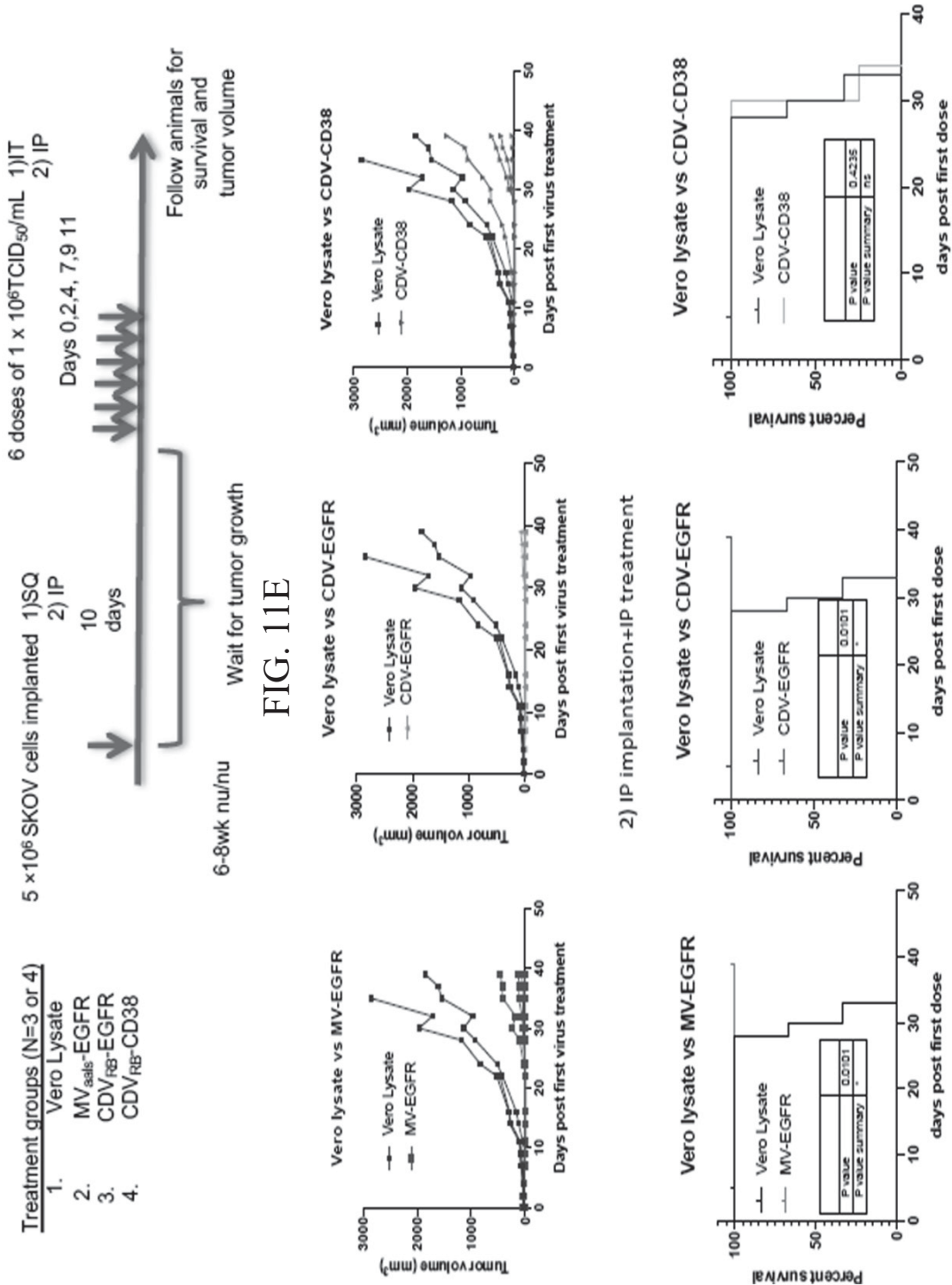


FIG. 11E

FIG. 11F

FIG. 12

ML.SYQDKVGAFYKDNARANSTKLSLVTEEHGGRPPYLLFVLLILLVGLALLAITGVRFHQVSTSNMEFSRLIKEDMEK
 .A. V.
PS. S. K.
 P. G. I.
PS. S. K.
S. P. S. K.
PS. S. M.
 S. Q. DQ. M.
 S. S. Q. M.
 S. Q. M.
 S. Q. M.
 S. Q. M.
 SR. DQ. M.
 S. Q. R. V.
 S. Q. V.
 S. Q. T. V.
 S. Y. Q. T. V.
 S. Q. V.
 S. Q. T. V.
 R. D. LS. M. L.
 LS. DQ. M.
 SR. DQ. M.
 SR. Q. K. M.
 SR. Q. M.
 SR. Q. M.
 S. Q. M.
 S. DQ. M.
 LS. Q. V. IN.
 LS. Q. I.
 LS. Q. I.
 LS. GQ. I.
 LS. Q. I.
 LS. Q. I.
 LS. Q. I.
 S. Q. M.
 S. Q. M.
 S. Q. M.
 S. Q. M.
 S. S. Q. M.
 H. S. F. V. M.

FIG. 12 (cont.)

JN153023.1_EuropeanWildlife	S.....S.....Q.....F.....V.....M.....
DQ889187.1_EuropeanWildlife	S.....S.....S.....I.....M.....A.....
FJ392651.1_EuropeanWildlife	S.....S.....Q.....MT.....
DQ889188.1_EuropeanWildlife	S.....S.....S.....I.....M.....A.....
JN153020.1_EuropeanWildlife	S.....S.....Q.....F.....V.....M.....
AY386316.1_5804P	S.....S.....Q.....MT.....
AY386315.1_Europe1_SA1	S.....S.....Q.....MT.....
JN153024.1_EuropeSA1	S.....S.....Q.....MT.....
FJ416338.1_EuropeSA1	S.....S.....Q.....MT.....
GU001863.1_EuropeSA1	S.....S.....Q.....L.....H.....
HM120874.1_EuropeSA1	S.....S.....Q.....MT.....
X85000.1_EuropeSA1	S.....S.....Q.....MT.....
KJ865300.1_SA2	S.....S.....Q.....MT.....
FJ392652.1_SA2	S.....S.....Q.....MT.....
JN215477.1_SA2	S.....S.....Q.....MT.....
JN215473.1_SA2	S.....S.....Q.....MT.....
EU098102.1_SA2	S.....S.....Q.....MT.....
MH362795.1_SA2	S.....S.....Q.....MT.....
JN215476.1_SA2	S.....S.....Q.....MT.....
KF8335412.1_SA3	SR.....Q.....I.....M.....
KF8335425.1_SA3	SR.....Q.....I.....M.....
KF8335414.1_SA3	SR.....Q.....I.....M.....
KF8335413.1_SA3	S.....Q.....I.....M.....
KF8335422.1_SA3	S.....Q.....I.....M.....
KF8335411.1_SA3	SR.....Q.....I.....M.....
FJ461693.1_Africal	S.....Q.....I.....V.....
FJ461704.1_Africal	S.....Q.....I.....V.....
FJ461722.1_Africal	S.....Q.....I.....V.....
FJ461716.1_Africal	S.....Q.....I.....V.....
KY971528.1_Africal	S.....Q.....I.....V.....N.....
FJ461719.1_Africal	S.....Q.....I.....V.....
FJ461696.1_Africal	S.....Q.....I.....V.....

FIG. 12 (cont.)

KY971532.1_Africa1	S	Q.I	V
JN812976.1_Africa2	H.	S	M..R.D
KU578254.1_Africa2	S	M..Q.D	
KC916716.1_Africa2	H.	S	M..R.D
KU578256.1_Africa2	H.	S	M..R.D
KU578255.1_Africa2	H.	S	M..R.D
KU578253.1_Africa2	S	M..Q.D	
KU578254.1_Africa2	S	M..Q.D	
KC916714.1_Africa2	S	M..Q.D	
AB025271.2_Asia1	P	I	
D85755.1_Asia1	S	Q	I
AB687720.2_Asia1	S	F	I
EU564813.1_Asia1	S	Q	I
JQ732176.1_Asia1	S	Q	I
EU296484.1_Asia1	S	Q	I
KJ994343.1_Asia1	S	Q	I..T
MH337872.1_Asia1	S	Q	I..T
EU716073.1_Asia2	S	Q	A..R..V.G..D.L.
AB475099.1_Asia2	S	Q	A..R..V.G..D.L.
FJ868161.1_Asia2	S	Q	A..R..V.G..D.L.
JQ732170.1_Asia2	S	Q	
AY297453.1_Asia2	S	Q	A..R..V.G..D.L.
AB025270.1_Asia2	S	Q	A..R..V.G..D.L.
AB212730.1_Asia2	S	Q	A..R..V.G..D.L.
EU743934.1_Asia3	E..M.	QRS	A..R..V.G..D.L.
EU743935.1_Asia3	E..M.	QRS	A..R..V.G..D.L.
AY297454.1	S	Q	A..R..V.G..D.L.
KJ489381.1_Asia4	S	P	M
KJ437596.1_Asia4	K.	Q	M
MH496773.1_Asia4	F	Q	M
MH496772.1_Asia4	F	Q	M
MH496777.1_Asia4	F	Q	M
MH496778.1_Asia4	F	Q	M
MH496774.1_Asia4	F	Q	M
MF964178.1_Asia5	S	Q	
MF964179.1_Asia5	S	Q	
MF964182.1_Asia5	V	Q	
MF964183.1_Asia5	T	Q	
MF964180.1_Asia5	S	Q	I

FIG. 12 (cont.)

MF964187.1_Asia5	S	Q	.
MF964181.1_Asia5	S	Q	.
MF964185.1_Asia5	S	Q.R	.
MF964186.1_Asia5	S	Q	.

AF378705.1_Americal
Z35493.1_Americal
AF25952.1_Americal
OQ903854.1_Americal
AY548109.1_Americal
HM046486.1_Americal
AY542312.2_Americal
AF112189.1_Americal2
Z47764.1_Americal2
Z47765.1_Americal2
Z47763.1_Americal2
Z54166.1_Americal2
Z54156.1_Americal2
KKT266736.1_America3
AY964110.1_America3
MF953474.1_America3
MF953470.1_America3
JN836734.1_America3
MF953472.1_America3
KJ747371.1_America4
KJ747372.1_America4
Z54156.1_America5
MK473366.1_America5
MK473365.1_America5
MK487379.1_America5
AF164967.1_A75/17
Z47764.1
KX024709.1_ArticLike
Z47760.1_ArticLike
KCC96628.1_ArticLike
AF172411.1_ArticLike
AY964108.1_ArticLike
OQ226087.1_ArticLike
MH430949.1_ArticLike
222458.16
GUGU266280.1_RockbornLike
FJF461702.1_RockbornLike
AY964114.1_RockbornLike
GU810819.1_RockbornLike

[illegible]

FIG. 12 (cont.)

Z47759.1_EuropeanWildlife
GQ214374.2_EuropeanWildlife
JN153023.1_EuropeanWildlife
DQ889187.1_EuropeanWildlife
FJ392651.1_EuropeanWildlife
DQ889188.1_EuropeanWildlife
JN153020.1_EuropeanWildlife
AY386316.1_5804P
AY386315.1_Europel_SA1
JN153024.1_EuropeSA1
FJ416338.1_EuropeSA1
GU001863.1_EuropeSA1
HM120874.1_EuropeSA1
X85000.1_EuropeSA1
KJ865300.1_SA2
FJ392652.1_SA2
JN215477.1_SA2
JN215473.1_SA2
EU098102.1_SA2
MH362795.1_SA2
JN215476.1_SA2
KF835412.1_SA3
KF835425.1_SA3
KF835414.1_SA3
KF835413.1_SA3
KF835422.1_SA3
KF835411.1_SA3
FJ461693.1_Africa1
FJ461704.1_Africa1
FJ461722.1_Africa1
FJ461716.1_Africa1
KY971528.1_Africa1
FJ461719.1_Africa1
FJ461696.1_Africa1
KY971532.1_Africa1
JN812976.1_Africa2
KU578254.1_Africa2
KC916716.1_Africa2
KU578256.1_Africa2
KU578255.1_Africa2
KU578253.1_Africa2
KU578254.1_Africa2

FIG. 12 (cont.)

KC916714.1_Africa2	I.....I.....DT...K
AB025271.2_Asia1	I.....DTV.VK
D85755.1_Asia1	I.....DTV.VK
AB687720.2_Asia1	I.....DTV.VK
EU564813.1_Asia1	I.....DTV.VK
JQ732176.1_Asia1	I.....DTV.VK
EU296484.1_Asia1	I.....DTV.VK
KJ994343.1_Asia1	I.....DTV.VK
MH337872.1_Asia1	I.....DTV.VK
EU716073.1_Asia2	I.....DT..VK
AB475099.1_Asia2	I.....DA..V.
FJ868161.1_Asia2	I.....DTV.VK
JQ732170.1_Asia2	I.....DT....
AY297453.1_Asia2	I.....DA..V.
AB025270.1_Asia2	I.....DA..V.
AB212730.1_Asia2	I.....DA..V.
EU743934.1_Asia3	Q...G...S...NF...DA..V.
EU743935.1_Asia3	Q...YG...S...NF...DA..V.
AY297454.1	M.....I.....DA..V.
KJ489381.1_Asia4	I.....DT....
KJ437596.1_Asia4	I.....DT....
MH496773.1_Asia4	IR.....DT....
MH496772.1_Asia4	I.....DT....
MH496777.1_Asia4	I.....DT....
MH496778.1_Asia4	I.....DT....
MH496774.1_Asia4	I..T.....DT....
MF964178.1_Asia5	V.....I.....DI...K
MF964179.1_Asia5	V.....I.....DI...K
MF964182.1_Asia5	V.....I.....DI...K
MF964183.1_Asia5	V.....I.....DI...K
MF964180.1_Asia5	V.....H...I.....DI...K
MF964187.1_Asia5	V.....I.....DI...K
MF964181.1_Asia5	V.....I.....DI...K
MF964185.1_Asia5	I.....DM...K
MF964186.1_Asia5	I.....DI...K

AF378705.1_America1	AF259552.1_America1	DQ903854.1_America1	AY548109.1_America1	HM046486.1_America1	AY542312.2_America1	AF112189.1_America2	Z47764.1_America2	Z47765.1_America2	Z47763.1_America2	Z54166.1_America2	Z54156.1_America2	KT266736.1_America3	AY964110.1_America3	MF953474.1_America3	MF953470.1_America3	JN836734.1_America3	MF953472.1_America3	KJ747371.1_America4	KJ747372.1_America4	JF283477.1_America5	Z54156.1_America5	MK473366.1_America5	MK473365.1_America5	MK487379.1_America5	AF164967.1_A75/17	Z47764.1_A75/17	KX024709.1_ArticLike	Z47760.1_ArticLike	KC966928.1_ArticLike	AF172411.1_ArticLike	AY964108.1_ArticLike	DQ226087.1_ArticLike	MH430949.1_ArticLike	22458.16	GU266280.1_Rockborn1	FJ461702.1_Rockborn1
---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	-------------------	-------------------	-------------------	-------------------	-------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	---------------------	-------------------	---------------------	---------------------	---------------------	-------------------	-----------------	----------------------	--------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------	----------------------	----------------------

170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	--

FIG. 12 (cont.)

JN812976.1_Africa2	S.....	D.G.....	Y.....	R.....	A.....	Y.....	Y.....
KU578254.1_Africa2	S.....	G.....	Y.....	R.....	K.A.....	Y.....	Y.....
KC916716.1_Africa2	S.....	D.G.....	Y.....	R.....	A.....	Y.....	Y.....
KU578256.1_Africa2	S.....	G.....	Y.....	R.....	A.....	Y.....	Y.....
KU578255.1_Africa2	S.....	G.....	Y.....	R.....	A.....	Y.....	Y.....
KU578253.1_Africa2	S.....	G.....	Y.....	R.....	K.A.....	Y.....	Y.....
KU578254.1_Africa2	S.....	G.....	Y.....	R.....	K.A.....	Y.....	Y.....
KC916714.1_Africa2	S.....	I.....	Y.....	R.....	K.A.....	Y.....	Y.....
AB025271.2_Asia1	S.....	I.....	Y.....	R.....		Y.....	Y.....
D85755.1_Asia1	S.....	I.....	Y.....	R.....		Y.....	Y.....
AB687720.2_Asia1	S.....	I.....	Y.....	R.....		Y.....	Y.....
EU564813.1_Asia1	S.....	IS.....	Y.....	R.....		Y.....	Y.....
JQ732176.1_Asia1	S.....	A.G.....	Y.....	R.....		Y.....	Y.....
EU296484.1_Asia1	S.....	I.....	Y.....	R.....	M.....	Y.....	Y.....
KJ994343.1_Asia1	S.....	I.....	Y.....	R.S.....		Y.....	Y.....
MH337872.1_Asia1	S.....	I.....	Y.....	R.S.....		Y.....	Y.....
EU716073.1_Asia2	S.....	I.....	Y.....	R.....	K.....	Y.....	Y.....
AB475099.1_Asia2	S.....	G.....	Y.....	R.....	K.....	Y.....	Y.....
FJ868161.1_Asia2	S.....	I.....	Y.....	R.....	S.....	Y.....	Y.....
JQ732170.1_Asia2	S.....	A.G.....	Y.....	R.....		Y.....	Y.....
AY297453.1_Asia2	S.....	G.....	Y.....	R.....	K.....	Y.....	Y.....
AB025270.1_Asia2	S.....	G.....	Y.....	R.....	K.....	Y.....	Y.....
AB212730.1_Asia2	S.....	G.....	Y.....	R.....	K.....	Y.....	Y.....
EU743934.1_Asia3	S.....	I.F.C.G.....	Y.....	I.....	T.....	Y.....	Y.....
EU743935.1_Asia3	S.....	H.....	Y.....	I.....	T.....	Y.....	Y.....
AY297454.1	S.....	G.....	Y.....	R.....	K.....	Y.....	Y.....
KJ489381.1_Asia4	S.....	G.....	Y.....	RI.....	K.....	Y.....	Y.....
KJ437596.1_Asia4	S.....	G.....	Y.....	R.....	K.....	M.Y.D	Y.....
MH496773.1_Asia4	S.....	G.....	Y.....	RI.....	K.....	Y.....	Y.....
MH496772.1_Asia4	S.....	G.....	Y.....	RI.....	K.....	Y.....	Y.....
MH496777.1_Asia4	S.....	G.....	Y.....	RI.....	K.....	Y.....	Y.....
MH496778.1_Asia4	S.....	G.....	YS.....	RI.....	K.....	Y.....	Y.....
MH496774.1_Asia4	S.....	D.....	Y.....	I.RI.....	K.....	Y.....	Y.....
MF964178.1_Asia5	ES.....	G.....	Y.....	RI.....	K.....	Y.....	Y.....
MF964179.1_Asia5	ES.....	E.G.....	Y.....		V.....	N.....	Y.....
MF964182.1_Asia5	ES.....	G.....	Y.....		V.....	N.....	Y.....
MF964183.1_Asia5	ES.....	E.G.....	Y.....		V.....	N.....	Y.....
MF964180.1_Asia5	ES.....	G.....	Y.....		V.....	I.....	Y.....
MF964187.1_Asia5	ES.....	E.G.....	Y.....		V.....	I.....	Y.....
MF964181.1_Asia5	ES.....	G.....	Y.....		V.....		Y.....
MF964185.1_Asia5	ES.....	S.....	Y.....	R.....			Y.....
MF964186.1_Asia5	ES.....	G.....	Y.N.....	R.....			Y.....

FIG. 12 (cont.)

[illegible]

FIG. 12 (cont.)

JN153023.1_EuropeanWildlife	G....K.....N.....D.....N..G..I....
DQ889187.1_EuropeanWildlife	G....K.....D.....N.....
FJ392651.1_EuropeanWildlife	G..E..K.....S.....D.....N.....
DQ889188.1_EuropeanWildlife	G....K.....D.....N.....
JN153020.1_EuropeanWildlife	G....K.....N.....D.....N..G..I....
AY386316.1_5804P	G....K.....D.....N.....
AY386315.1_Europe1_SA1	G....K.....D.....N.....
JN153024.1_EuropeSA1	G....K.....N..F.....D.....N.P.G.V....
FJ416338.1_EuropeSA1	G....K.....N..F.....D.....N..G.V....
GU001863.1_EuropeSA1	G.V...K.....N.....D.....ND.....
HM120874.1_EuropeSA1	G....K.....N..F...I.....D.....N..G.V....
X85000.1_EuropeSA1	G....K.....N.....D.....N.....
KJ865300.1_SA2	G....K.....N.....M.....D..S..N.....
FJ392652.1_SA2	G....K.....F.....D..S..G.....
JN215477.1_SA2	G....K.....N.....D..I..N.....
JN215473.1_SA2	G....K.....N.....D..I..N.....
EU098102.1_SA2	G....K.....N.....AD.....
MH362795.1_SA2	G....K.....N.....M.....D..S..N.....
JN215476.1_SA2	G....K.....N.....D..I..N.....
KF835412.1_SA3	G....K.....S.....R.....D.....N..SV....
KF835425.1_SA3	G....K.....S.....R.....D.....N..SV....
KF835414.1_SA3	G....K.....S.....R.....D.....N..SV....
KF835413.1_SA3	G....K.....S.....R.....D.....N..SV....
KF835422.1_SA3	G....K.....S.....G.....D.....N..SV....
KF835411.1_SA3	G....K.....S.....R.....D.....N..SV....
FJ461693.1_Africal1	G....K.....DD.....N.....
FJ461704.1_Africal1	G....K.....DD.....N.....
FJ461722.1_Africal1	G....K.....DD.....N..G....
FJ461716.1_Africal1	G....K.....I.....DD.....N.....
KY971528.1_Africal1	G....K.....M.....DD.....
FJ461719.1_Africal1	G....K.....DD.....N.....
FJ461696.1_Africal1	G....K.....G.....N.....
KY971532.1_Africal1	G....K.....D.....N.....
JN812976.1_Africa2	G....K.....N.....S..N.....
KU578254.1_Africa2	G....K.....I.....D.....S..N.....
KC916716.1_Africa2	G....K.....DK.....S..N.....
KU578256.1_Africa2	G....K.....D.....S..N.....
KU578255.1_Africa2	G....K.....A.....S..N.....
KU578253.1_Africa2	G.....I.....S..N.....
KU578254.1_Africa2	G.....I.....S..N.....
KC916714.1_Africa2	G.....I.....S..N.....
AB025271.2_Asia1	G...S.K.....T.....D..W...N.....

FIG. 12 (cont.)

D85755.1_Asia1	G...S.....	T.....	D.....	N...N.....
AB687720.2_Asia1	G...S.K.....	VT.....	D.....	N...N.....
EU564813.1_Asia1	G...S.K.....	T.....	D.....	N.....
JQ732176.1_Asia1	E...S.K.....	T.....	D.....	S...N...N.....
EU296484.1_Asia1	G..GS.K.....	T.....	D.....	M...N.....
KJ994343.1_Asia1	G...S.K.....	NI.....	D.....	N...NS.....
MH337872.1_Asia1	G...S.K.....	NI.....	D.....	N...N.....
EU716073.1_Asia2	K.....	.....	D.....	N...S.....
AB475099.1_Asia2	K.....	.....	D.....	N...S.....
FJ868161.1_Asia2	G...S.K.....	E.....	D.....	N.PH.SV.....
JQ732170.1_Asia2	G.....K.....	.....	D.....	N...S.....
AY297453.1_Asia2	K.....	.....	D.....	N...S.....
AB025270.1_Asia2	K.....	.....	D.....	N...S.....
AB212730.1_Asia2	K.....	.....	D.....	N...S.....
EU743934.1_Asia3	K...R.....	I...I.G..E.....	DQ.....	Y.N.R.S.....
EU743935.1_Asia3	K...R.....	I...I.G..E.....	DQ.....	Y.N.R.S.....
AY297454.1	K.....	.....	D.....	N...S.....
KJ489381.1_Asia4	G.....K.....	L.....	V.....	N.....
KJ437596.1_Asia4	G.....K.....	L.....	A.....	N.....
MH496773.1_Asia4	G.....K.....	L.....	D.....	N.....
MH496772.1_Asia4	G.....K.....	L.....	D.....	N.....
MH496777.1_Asia4	G.....K.....	L.....	D.....	N.....
MH496778.1_Asia4	G.....K.....	L.....	D.....	N.....
MH496774.1_Asia4	G.....K.....	L.....	D.....	N.....
MF964178.1_Asia5	E.....K.....	S.....	D.....	P...S.....
MF964179.1_Asia5	E.....K.....	S.N.....	D.....	P...S.....
MF964182.1_Asia5	E.....K.....	S.....	D.....	P...S.....
MF964183.1_Asia5	E.....K.....	S.N.....	D.....	P...S.....
MF964180.1_Asia5	E.....K.....	S.....	D.....	P...S.....
MF964187.1_Asia5	EK...K.....	S.N.....	D.....	P...S.....
MF964181.1_Asia5	E.....K.....	S.N.....	D.....	P...S.....
MF964185.1_Asia5	E.....K.....	N.S.....	D.....	V.S.D.P.S.....
MF964186.1_Asia5	E.....K.....	N.....	D.....	V.....P.S.....

AF378705.1_Americal
Z35493.1_Americal
AF25952.1_Americal
OQ90384.1_Americal
AY548109.1_Americal
HM046486.1_Americal
AY542312.2_Americal
AF112189.1_Americal
Z47764.1_Americal
Z47765.1_Americal
Z47763.1_Americal
Z54166.1_Americal
Z54156.1_Americal
KT266736.1_America3
AY964110.1_America3
MF953474.1_America3
MF953470.1_America3
JN836734.1_America3
MF953472.1_America3
KJ747371.1_America4
KJ747372.1_America4
JF283477.1_America5
Z54156.1_America5
MK473366.1_America5
MK473365.1_America5
MK487379.1_America5
AF164967.1_A75/17
Z47764.1
KX027409.1_ArticLike
Z47760.1_ArticLike
KC966928.1_ArticLike
AF172411.1_ArticLike
AY964108.1_ArticLike
OQ226087.1_ArticLike
MH430949.1_ArticLike
22458.16
GU266280.1_RockbornLike
FJ461702.1_RockbornLike

[illegible]

FIG. 12 (cont.)

AY964114.1_RockbornLike	G...	QV...	V...	V...	V...	EN...	S...
GU810819.1_RockbornLike	G...	QV...	V...	V...	V...	N...	S...
Z47759.1_EuropeanWildlife	G...	QV...	V...	V...	V...	N...	S...
GQ214374.2_EuropeanWildlife	G...	QV...	V...	V...	I GE...	N...	S...
JN153023.1_EuropeanWildlife	G...	QV...	V...	V...	I GE...	N...	S...
DQ889187.1_EuropeanWildlife	G...	QV...	V...	V V N...	V V N...	N...	S...
FJ392651.1_EuropeanWildlife	G...	QV...	V...	K I...	V...	N...	S...
DQ889188.1_EuropeanWildlife	G...	QV...	V...	V V N...	V V N...	N...	S...
JN153020.1_EuropeanWildlife	G...	QV...	V...	V...	I GE...	N...	S...
AY386316.1_5804P	G...	QV...	V...	V...	V...	N...	S...
AY386315.1_Europel_SA1	G...	QV...	V...	V...	V...	N...	S...
JN153024.1_EuropeSA1	G...	QV M...	V...	V V...	V...	N...	S...
FJ416338.1_EuropeSA1	G...	QV M...	V...	V...	V...	N...	S...
GU001863.1_EuropeSA1	G L...	QV K...	V N...	V...	V...	N...	S...
HM120874.1_EuropeSA1	G...	QV M...	V...	V...	V...	N...	S...
X85000.1_EuropeSA1	G...	QV...	V...	V...	V...	N...	S...
KJ865300.1_SA2	G...	QV...	V...	V F...	V...	N...	S...
FJ392652.1_SA2	G...	QV...	V...	V...	V...	N...	S...
JN215477.1_SA2	G...	QV...	V...	V...	V...	N...	S...
JN215473.1_SA2	G...	QV...	V...	A...	V...	N...	T R...
EU098102.1_SA2	G...	QV...	V...	V F...	V...	N...	S...
MH362795.1_SA2	G...	QV...	V...	V...	V...	N...	S...
JN215476.1_SA2	G...	QV...	I...	L...	V...	N...	S...
KF835412.1_SA3	G...	QV...	I...	L...	V...	N...	S...
KF835425.1_SA3	G...	QV...	I...	L...	V...	N...	S...
KF835414.1_SA3	G...	QV...	I...	L...	V...	N...	S K...
KF835413.1_SA3	G...	QV...	I...	L...	V...	N...	S...
KF835422.1_SA3	G...	QV...	I...	L...	V...	N...	S...
KF835411.1_SA3	G...	QV...	I...	L...	V...	N...	S...
FJ461693.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
FJ461704.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
FJ461722.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
FJ461716.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
KY971528.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
FJ461719.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
FJ461696.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
KY971532.1_Africa1	G...	QV...	I...	V R...	V R...	I...	S...
JN812976.1_Africa2	G L...	QV...	V...	V R...	V R...	QN...	S...
KU578254.1_Africa2	G IV...	QV...	V R...	R...	QN...	QN...	RS...
KC916716.1_Africa2	G L...	QV...	V...	QN...	QN...	QN...	S...
KU578256.1_Africa2	G L...	QV...	V...	QN...	QN...	QN...	S...
KU578255.1_Africa2	G L...	QV...	V...	QN...	QN...	QN...	S...

FIG. 12 (cont.)

KU578253.1_Africa2	G..L..QV.....V.....QN.....RS.....
KU578254.1_Africa2	G..LV.QV.....V.....QN.....RS.....
KC916714.1_Africa2	G..LV.QV.....V.....R.....QN.....RS.....
AB025271.2_Asia1	G.....QV.....VR.....V.....N.....S.....
D85755.1_Asia1	G.....QV.....VR.....V.....N.....S.....
AB687720.2_Asia1	G.....QV.....VR.....V.....N.....S.....R.....
EU564813.1_Asia1	G.....QV.....I.....V.....V.....HI.S.....
JQ732176.1_Asia1	G.....QV.....I.....VR.....VV.....N.....S.....
EU296484.1_Asia1	G.....QV.....I.....VG.....V.....N.....S.....G.....
KJ994343.1_Asia1	G.....QV.....I.....VR.....VV.....N.....SC.....
MH337872.1_Asia1	G.....QV.....I.....VR.....VV.....V.V.G.....N.....S.....
EU716073.1_Asia2	G.....NQV.....V.....V.....V.Q.G.N.....S.....
AB475099.1_Asia2	G.....NQV.....VR.....V.....V.Q.G.N.....S.....
FJ868161.1_Asia2	G.....NQV.....V.....V.....V.Q.G.N.....S.....
JQ732170.1_Asia2	G.....QV.....V.....V.....V.....N.....S.....
AY297453.1_Asia2	G.....NQV.....VR.....V.....V.Q.G.N.....S.....
AB025270.1_Asia2	G.....NQV.....VR.....V.....V.Q.G.N.....S.....
AB212730.1_Asia2	G.....NQV.....VR.....V.....V.Q.G.N.....S.....
EU743934.1_Asia3	E.S..NQV.....N.V.R.....Y.I..V.....V.RL.G.EN.....R.ES...K...C.....
EU743935.1_Asia3	E.S..NQV.....N.V.R.....Y.I..V.....V.RL.G.EN.....R.ES...K...C.....
AY297454.1	G.....NQV.....VR.....V.....V.Q.G.N.....S.....
KJ489381.1_Asia4	G.....QV.....V.M.....VV.....N.....S.....
KJ437596.1_Asia4	G.....QV.....V.....VV.....N.....S.....
MH496773.1_Asia4	G.....QV.V.....S.V.M.....VV.....N.....S.....
MH496772.1_Asia4	G.....QV.V.....S.V.M.....VV.....N.....S.....
MH496777.1_Asia4	G.....QV.V.....S.V.M.....VV.....N.....S.....
MH496778.1_Asia4	G.....QV.....S.V.M.....VV.....N.....S.....
MH496774.1_Asia4	G.....QV.....S.V.M.....VV.....N.....S.....
MF964178.1_Asia5	G..L..QV.K.....V.....QT.....
MF964179.1_Asia5	G..L..QV.K.....I.....QT.....
MF964182.1_Asia5	A..L..QV.K.....V.....QT.....
MF964183.1_Asia5	G..L..QV.K.....I.....QT.....
MF964180.1_Asia5	G..L..QV.K.....I.....QT.....
MF964187.1_Asia5	G..L..QV.K.....I.....QT.....
MF964181.1_Asia5	G..L..QV.K.....I.....QT.....
MF964185.1_Asia5	G..L..QV.K.....V.....QN.....
MF964186.1_Asia5	M.G..L..QV.K.....V.....QN.....

FIG. 12 (cont.)

AF378705.1_America1
Z35493.1_America1
AF259552.1_America1
DQ903854.1_America1
AY548109.1_America1
HM046486.1_America1
AY542312.2_America1
AF112189.1_America2
Z47764.1_America2
Z47765.1_America2
Z47763.1_America2
Z54166.1_America2
Z54156.1_America2
KT266736.1_America3
AY964110.1_America3
MF953474.1_America3
MF953470.1_America3
JN836734.1_America3
MF953472.1_America3
KJ747371.1_America4
KJ747372.1_America4
Z54156.1_America5
MK473366.1_America5
MK473365.1_America5
MK487379.1_America5
AF164967.1_A75/17
Z47764.1_America5
KX024709.1_ArticLik
Z47760.1_ArticLike
KC966928.1_ArticLik
AF172411.1_ArticLik
AY964108.1_ArticLik
DQ226087.1_ArticLik
MH430949.1_ArticLik
Z2458.16
GU266280.1_Rockborn
FJ461702.1_Rockborn
AY964114.1_Rockborn
GU810819.1_Rockborn
Z47759.1_EuropeanWi
GQ214374.2_European

[illegible]

FIG. 12 (cont.)

D85755.1_Asia1	G.....L.P.I.										V.			S.	T.
AB687720.2_Asia1	G.....P.I.	Y.												S.	T.
EU564813.1_Asia1	G.....P.I.													S.	T.
JQ732176.1_Asia1	G.....P.					E.								S.H.	T.
EU296484.1_Asia1	G.....P.I..A.					D.								S.	T.
KJ994343.1_Asia1	G.....P.N.					E.				S.VL.				S.	T.
MH337872.1_Asia1	G.....P.					E.			V.					S.	T.Y.
EU716073.1_Asia2	V.....I.					D.				I.				S.	T.
AB475099.1_Asia2	V.....I.				N.D.					L.				S.K.	T.
FJ868161.1_Asia2	V....H...I.				N.D.					L.				S.	T.
JQ732170.1_Asia2	V.....I.				D.					L.				S.	I.
AY297453.1_Asia2	V.....I.				N.D.					L.				S.	T.
AB025270.1_Asia2	V.....I.				N.D.					L.				S.	T.
AB212730.1_Asia2	V.....I.				N.D.					L.				S.	T.
EU743934.1_Asia3	V.V.....ERI.				N.D.R.					L.				S.E.	TS.
EU743935.1_Asia3	V.V.....ERI.				N.D.R.					L.				S.E.	TS.
AY297454.1	V.....I.				N.D.					L.				S.	T.
KJ489381.1_Asia4	G.....P.I.	N.			I.D.					VL.				S.	V.
KJ437596.1_Asia4	G.....P.I.	N.			D.					VL.	R.S.			V.	
MH496773.1_Asia4	G.....P.I.	N.			I.D.					VL.				S.	V.
MH496772.1_Asia4	G.....P.I.	N.			I.D.					VL.				S.	V.
MH496777.1_Asia4	G.....P.I.	N.			I.D.					VL.				S.	V.
MH496778.1_Asia4	G.....P.I.	N.			I.D.					VL.				S.	V.
MH496774.1_Asia4	G.....P.I.	N.			I.D.					VL.				S.	V.
MF964178.1_Asia5	P.I.	N.			I.D.					VL.				S.	V.
MF964179.1_Asia5	P.I.	N.			I.D.					VL.				S.	V.
MF964182.1_Asia5	P.I.		G.		DY.					VL.	S.E.			I.	
MF964183.1_Asia5	P.I.		G.		DY.					VL.		S.		I.	
MF964180.1_Asia5	P.I.		G.		DY.					VL.	S.E.			I.	
MF964187.1_Asia5	P.I.		G.		DY.					VL.		S.		I.	
MF964181.1_Asia5	P.I.		G.		DY.					VL.		S.		I.	
MF964185.1_Asia5	GR.....P.I..I.				D.					VL.		S.		I.	
MF964186.1_Asia5	S.P.I.				D.					VL.		S.		I.	

FIG. 12 (cont.)

AF378705.1_Americal
Z35493.1_Americal
AF259552.1_Americal
DQ903854.1_Americal
AY548109.1_Americal
HM046486.1_Americal
AY542312.2_Americal
AF112189.1_Americal2
Z47764.1_America2
Z47765.1_America2
Z47763.1_America2
Z54166.1_America2
Z54156.1_America2
KT266736.1_America3
AY964110.1_America3
MF953474.1_America3
MF953470.1_America3
JN836734.1_America3
MF953472.1_America3
KJ747371.1_America4
KJ747372.1_America4
Z54156.1_America5
MK473366.1_America5
MK473365.1_America5
MK487379.1_America5
AF164967.1_A75/17
Z47764.1
KX024709.1_ArticLike
Z47760.1_ArticLike
KC966928.1_ArticLike
AF172411.1_ArticLike
AY964108.1_ArticLike
DQ226087.1_ArticLike
MH430949.1_ArticLike
Z2458.16
GU266280.1_RockbornLike
FJ461702.1_RockbornLike
AY964114.1_RockbornLike
GU810819.1_RockbornLike

[illegible]

FIG. 12 (cont.)

Z47759.1_EuropeanWildlife	...	R.	...	M.	...	T.	...	L.	...	N.	...	N.	...	D.	...	Y.	...
GQ214374.2_EuropeanWildlife	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	D.	...		...
JN153023.1_EuropeanWildlife	S.R.	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	D.	...		I.
DQ889187.1_EuropeanWildlife	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	D.	...	Y.	...
FJ392651.1_EuropeanWildlife	...	R.	G.	...	M.K.	A.	...	L.	...	N.	...	N.	...	D.	...	Y.	...
DQ889188.1_EuropeanWildlife	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	D.	...	Y.	...
JN153020.1_EuropeanWildlife	S.R.	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	D.	...		I.
AY386316.1_5804P	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...		...
AY386315.1_Europe1_SA1	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...	Y.	...
JN153024.1_EuropeSA1	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...	Y.	E.
FJ416338.1_EuropeSA1	...	R.	...	L.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...		E.
GU001863.1_EuropeSA1	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	I.	...	G.	...	Y.	...
HM120874.1_EuropeSA1	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...		E.
X85000.1_EuropeSA1	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...	Y.	...
KJ865300.1_SA2	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...	Y.	...
FJ392652.1_SA2	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...	Y.	...
JN215477.1_SA2	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	S.	...	G.	...	Y.	V.
JN215473.1_SA2	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	S.	...	G.	...	Y.	...
EU098102.1_SA2	...	R.	...	M.N.	...	T.	...	L.	...	L.	...	N.	...	G.	...	Y.	...
MH362795.1_SA2	...	R.	...	M.K.	...	T.	...	L.	...	N.	...	N.	...	G.	...	Y.	...
JN215476.1_SA2	...	R.	...	M.K.	...	TG.	...	L.	...	N.	...	S.	...	G.	...	Y.	...
KF835412.1_SA3	...	R.	R.	...	M.K.	...	...	L.	...	N.	...	T.	...	N.	...	S.	...
KF835425.1_SA3	...	R.	R.	...	M.K.	...	...	L.	...	N.	...	T.	...	N.	...	S.	...
KF835414.1_SA3	...	R.	R.	...	M.K.	...	...	L.	...	N.	...	T.	...	N.	...	S.	...
KF835413.1_SA3	...	R.	R.	...	M.K.	...	...	L.	...	N.	...	N.	...	N.	...	Y.	...
KF835422.1_SA3	...	R.	R.	...	M.K.	...	...	L.	...	N.	...	N.	...	N.	...	Y.	...
KF835411.1_SA3	...	R.	R.	...	M.K.	...	...	L.	...	N.	...	T.	...	N.	...	S.	...
FJ461693.1_Africa1	S.R.	...	S.	...	M.K.	...	T.	...	L.	...	N.	V.	...	N.	...	Y.	...
FJ461704.1_Africa1	S.R.	...	S.	...	M.K.	...	T.	...	L.	...	N.	V.	...	N.	...	Y.	...
FJ461722.1_Africa1	S.R.	...	S.	...	M.K.	...	T.	...	L.	...	N.	V.	...	N.	...	Y.	...
FJ461716.1_Africa1	S.R.	...	S.	...	M.K.	...	T.	...	L.	...	N.	V.	...	N.	...	Y.	...
KY971528.1_Africa1	S.R.	...	S.	...	M.K.	...	T.	...	L.	...	N.	V.	...	N.	...	Y.	...
FJ461719.1_Africa1	S.R.	...	S.	...	M.K.	...	T.	...	L.	...	N.	V.	...	N.	...	Y.	T.
FJ461696.1_Africa1	...	R.	...	S.	...	M.K.	...	T.	...	L.	...	V.	...	N.	...	Y.	K.
KY971532.1_Africa1	...	R.	...	S.	...	VM.K.	...	T.	...	L.	...	I.	...	N.	...		...
JN812976.1_Africa2	...	R.	...	K.	...	M.K.	...	T.	...	L.	...	N.	...	GV.	D.	...	Y.

FIG. 12 (cont.)

KU578254.1_Africa2	..R...	M.K...	T..L...	N...	V..D...	Y.
KC916716.1_Africa2	..R...	M.K...	T..L...	N...	V..D...	
KU578256.1_Africa2	..R...	M.K...	T..L...	N.I...	V..D...	
KU578255.1_Africa2	..R...	M.K...	T..L...	N.I...	V..D...	
KU578253.1_Africa2	..R...	M.K...	T..L...	N...	V..D...	Y.
KU578254.1_Africa2	..R...	M.K...	T..L...	N...	V..D...	Y.
KC916714.1_Africa2	..R...	M.K...	T..L...	N...	V..D...	Y.
AB025271.2_Asia1	..R...	M.K...	T..L...	N...	G...	Y.
D85755.1_Asia1	..R...	M.K...	T..L...	N...	G...	MY.
AB687720.2_Asia1	..R...	M.K...	T..L...	N...	G...	F..Y.
EU564813.1_Asia1	..R...	M.K...	T..L...	N...	G...	D...
JQ732176.1_Asia1	..R...	M.K...	T..L...	N...	G...	Y.
EU296484.1_Asia1	..R...	M.K...	T..L...	N...	G...	Y.
KJ994343.1_Asia1	..R...	M.K...	T..L...	N...	GN...	N.
MH337872.1_Asia1	..R...	M.K...	T..L...	N...	G...	N.
EU716073.1_Asia2	..R..E	M.K...	T..L...	N...	EN...	Y.
AB475099.1_Asia2	..R...	M.K...	T..L...	N...	V...	Y.
FJ868161.1_Asia2	..R...	M.K...	T..L...	N...	V...	MY.
JQ732170.1_Asia2	..R...	M.K...	T..L...	N...	V...	Y.
AY297453.1_Asia2	..R...	M.K...	T..L...	N...	V...	MY.
AB025270.1_Asia2	..R...	M.K...	T..L...	N.G.V.	EN...	Y.
AB212730.1_Asia2	..R...	M.K...	T..L...	N...	V...	Y.
EU743934.1_Asia3	..R...	M.K...	T..L..F..N...	V...	RY...	Y.
EU743935.1_Asia3	..R...	M.K...	T..L..F..N...	V...	RY...	Y.
AY297454.1	..R...	M.K...	T..L...	N...	V...	Y.
KJ489381.1_Asia4	..R...	M.K...	..L...	N...	D...	Y.
KJ437596.1_Asia4	..R...	M.K...	..L...	N...	D...	Y.
MH496773.1_Asia4	..R...	M.K...	T..L...	N...	D...	Y.
MH496772.1_Asia4	..R...	M.K...	T..L...	N...	D...	Y.
MH496777.1_Asia4	..R...	M.K...	T..L...	N...	D...	Y.
MH496778.1_Asia4	..R...	M.K...	T..L...	N...	D...	Y.
MH496774.1_Asia4	..R...	M.K...	T..L...	N...	D...	Y.
MF964178.1_Asia5	..R.P	M.K...	T..L..LHN...	V.D...	D...	K.Y.Y.
MF964179.1_Asia5	..R...	M.K...	T..L..L.N...	V.D...	V.D...	Y.
MF964182.1_Asia5	..R...	M.K...	T..L..LHN...	V.D...	V.D...	Y.
MF964183.1_Asia5	..R...	M.K...	T..L..L.N...	V.D...	V.D...	Y.
MF964180.1_Asia5	..R...	M.K...	T..L..L.N...	V.G...	V.G...	Y.
MF964187.1_Asia5	..R...	M.K...	T..L..L.N...	V.D...	V.D...	Y.
MF964181.1_Asia5	..R...	M.K...	T..L..L.N...	V.D...	C...	Y.
MF964185.1_Asia5	..R...	M.K...	T..L..R.N...	V.N...	V.N...	Y.
MF964186.1_Asia5	..R...	M.K...	T..L..L.N...	V...	V.D...	Y.

FIG. 12 (cont.)

AF378705.1_America1	FLRIECFVDDNLWCHQFYRFEADIANSTTSVENLVRIRFSCNR*----	SNP*
Z35493.1_America1	N.....	SNP*
AF259552.1_America1	Y.N.....	SNP*
DQ903854.1_America1	Y.N.....	SNP*
AY548109.1_America1	Y.N.....	SNP*
HM046486.1_America1	Y.N.....	SNP*
AY542312.2_America1	Y.N.....	SNP*
AF112189.1_America2	D.....ST.....	SNP*
Z47764.1_America2	D.....T.ST.....I.....	SNP*
Z47765.1_America2	D.....T.ST.....	SNP*
Z47763.1_America2	D.....ST.....	SNP*
Z54166.1_America2	D.....T.ST.....	SNP*
Z54156.1_America2	D.....ST.....	SNP*
KT266736.1_America3	D.....T.....T.I.....T.DP.S.K.SGP*	SNP*
AY964110.1_America3	D.....T.....	SNP*
MF953474.1_America3	D.....T.A.....	SNP*
MF953470.1_America3	D.....T.A.....	SNP*
JN836734.1_America3	D.....T.A.....	SNP*
MF953472.1_America3	D.....T.....M.....	SNP*
KJ747371.1_America4	D.....T.....M.....	SNP*
KJ747372.1_America4	D.....ST.....	SNP*
Z54156.1_America5	D.....T.ST.....	SNP*
MK473366.1_America5	D.....T.ST.....	SNP*
MK473365.1_America5	D.....T.ST.....	SNP*
MK487379.1_America5	D.....T.ST.....	SNP*
AF164967.1_A5/17	D.....ST.....	SNP*
Z47764.1	D.....T.ST.....I.....	SNP*
KX024709.1_ArticLike	D.....T.....	SNP*
Z47760.1_ArticLike	D.....T.....	SNP*
KC966928.1_ArticLike	D.....T.....	SNP*
AF172411.1_ArticLike	D.....T.....	SNP*
AY964108.1_ArticLike	D.....N.....	SNP*
DQ226087.1_ArticLike	D.....T.....	SNP*
MH430949.1_ArticLike	GD.....T.....K.....	SNP*
22458.16	D.....T.....	SNP*
GU266280.1_RockbornLike	D.....T.F.....	SNP*
FJ461702.1_RockbornLike	D.....TD.....	SNP*
AY964114.1_RockbornLike	D.....T.FP.....	SNP*

FIG. 12 (cont.)

GU810819.1_RockbornLike	D.....	T.F.....	SKP*
Z47759.1_EuropeanWildlife	D.....	T.....	SKP*
GQ214374.2_EuropeanWildlife	G.D.....	T.....	SKH*
JN153023.1_EuropeanWildlife	D.....	T.....H.....	SKP*
DQ889187.1_EuropeanWildlife	YD.....	T.....	SKP*
FJ392651.1_EuropeanWildlife	D.....	T.....	SKP*
DQ889188.1_EuropeanWildlife	YD.....	T.....	SKP*
JN153020.1_EuropeanWildlife	D.....	T.....H.....	SKP*
AY386316.1_5804P	D.....	T.....	SKP*
AY386315.1_Europel_SA1	D.....	T.....	SKP*
JN153024.1_EuropeSA1	D.....	T.I.....H.....	SKP*
FJ416338.1_EuropeSA1	D.....	Q.....T.I.....H.....	SKP*
GU001863.1_EuropeSA1	D.....	VT.....	K...D.SKP*
HM120874.1_EuropeSA1	D.....	T.I.....H.....	SKP*
X85000.1_EuropeSA1	D.....	T.....	SKP*
KJ865300.1_SA2	D.....	T.....	SKP*
FJ392652.1_SA2	S.....D.....	Q.....T.....	SKP*
JN215477.1_SA2	D.....	Q.....T.....	SKP*
JN215473.1_SA2	D.....	Q.....T.....	SKP*
EU098102.1_SA2	D.....	Q.....T.....	SKP*
MH362795.1_SA2	D.....	T.....	SKP*
JN215476.1_SA2	D.....	Q.....G.....	SKP*
KF835412.1_SA3	D.....	K...T.....	SKP*
KF835425.1_SA3	D.....	K...T.....	SKP*
KF835414.1_SA3	D.....	K...T.....	SKP*
KF835413.1_SA3	D.....	T.....	SKP*
KF835422.1_SA3	D.....	T.....	SKP*
KF835411.1_SA3	D.....	K...T.....	SKP*
FJ461693.1_Africal	D.....	T.....	SKP*
FJ461704.1_Africal	D.....	T.....	SKP*
FJ461722.1_Africal	D.....	T.....	SKP*
FJ461716.1_Africal	D.....	T.....	SKP*
KY971528.1_Africal	D.....	T.....	SKP*
FJ461719.1_Africal	D.....	T.....	SRP*
FJ461696.1_Africal	D.....	T.....	SKP*
KY971532.1_Africal	D.....	T.T.....	SKP*

FIG. 12 (cont.)

JN812976.1_Africa2	D.....VT.....C.....SKP*
KU578254.1_Africa2	D.....VT.....C.....SKP*
KC916716.1_Africa2	D.....VT.....C.....SKP*
KU578256.1_Africa2	D.....VT.....C.....SKP*
KU578255.1_Africa2	D.....VT.....C.....SKP*
KU578253.1_Africa2	D.....VT.....C.....SKP*
KU578254.1_Africa2	D.....VT.....C.....SKP*
KC916714.1_Africa2	D.....VT.....C.....SKP*
AB025271.2_Asia1	D.....N.T.....SKP*
D85755.1_Asia1	D.....N.T.....SKP*
AB687720.2_Asia1	D.....N.T.....H.....SKP*
EU564813.1_Asia1	D.....N.T.....SKP*
JQ732176.1_Asia1	D.....NVT.....SKP*
EU296484.1_Asia1	D.....N.T.....SKP*
KJ994343.1_Asia1	D.....N.T.....SKP*
MH337872.1_Asia1	D.....N.T.....SKP*
EU716073.1_Asia2	D.....S.TS.....D.....SKP*
AB475099.1_Asia2	D.....S.T.....D.....SKP*
FJ868161.1_Asia2	D.....S.T.....D.....SKP*
JQ732170.1_Asia2	D.....T.....SKP*
AY297453.1_Asia2	D.....S.T.....D.....SKP*
AB025270.1_Asia2	D.....S.T.....D.....SKP*
AB212730.1_Asia2	D.....S.T.....D.....SKP*
EU743934.1_Asia3	D.....S.T.....D.....SEP*
EU743935.1_Asia3	D.....S.T.....D.....SEP*
AY297454.1	D.....S.T.....D.....SKP*
KJ489381.1_Asia4	D.....T.....S.M.....SKP*
KJ437596.1_Asia4	D.....T.A.....S.M.....SKP*
MH496773.1_Asia4	D.....D.....SKP*
MH496772.1_Asia4	D.....D.....SKP*
MH496777.1_Asia4	D.....D.....SKP*
MH496778.1_Asia4	D.....D.....SKP*
MH496774.1_Asia4	D.....D.....SKP*
MF964178.1_Asia5	G.D.....VT.....SKP*
MF964179.1_Asia5	D.....VT.....K.....SKP*
MF964182.1_Asia5	D.....VT.....SKP*
MF964183.1_Asia5	D.....VT.....SKP*
MF964180.1_Asia5	D.....VT.....SKP*
MF964187.1_Asia5	D.....VT.....SKP*
MF964181.1_Asia5	D.....VT.....SKP*
MF964185.1_Asia5	D.....VT.....H.....F.....SKP*
MF964186.1_Asia5	D.....VT.....SKP*

FIG. 13 (cont.)

MH496778 7 DOG_TH 2014
 MH496775 3 DOG_TH 2014
 KJ747372 2262 DOG_US 2013
 KJ747371 1941 FOX_US 2013
 KJ466106 SY_RACCOONDOG_CN 2012
 MH496775 4 DOG_TH 2014
 JN896331 PS_DOGV_CN 2010
 AB753775 AC961 DOG_JP 2004
 MK431532 NTU DOG_TW 2005
 KC427278 HEBEI_MINK_CN 2008
 MH496776 5 DOG_TH 2014
 KP765764 LN1_FOX_CN 2010
 KX347928 AH_DOG_CN 2015
 MH496779 8 DOG_TH 2014
 JX681125 HLJ1_FOX_CN 2006
 KP793921 GIANTPANDASX_CN 2014
 KP677502 LOUGUANTAIL_PANDA_CN
 KP765763 SD7_FOX_CN 2014
 KP738610 SD11_RACCOONDOG_CN 20
 MH337872 SD16F_FOX_CN 2016
 KX499865 ZYL_FOX_CN 2015
 MF041963 CDV06_WOLF_ET 2016
 KJ848781 RDJL_RACCOONDOG_CN 20
 KX709880 HL001_DOG_CN 2012
 LC159587 HCM33_DOG_VN 2014
 AB687720 CYN07DV_MACAQUE_JP 20
 KF856711 BJ01_MONKEY_CN 2006
 HM852904 MKYKM08_MACAQUE_CN 20
 LC342298 RC13_RACCOON_JP 2016
 KJ994343 ZC_RACCOONDOG_CN 201
 KY971532 WT02_HYENA_SA 2017
 KY971528 WT01_DOG_SA 2016
 PC0046 SEAL_KZ 2000
 PC0020 SEAL_KZ 2000
 PC0021 SEAL_AZ 2000
 MH316137 1747 DOG_IT 2018

..NK..R.R.R..R.GLS..H.KSIG.K.....LQ...LG.Q...H.IKN.T..C..A.Y.SG..SA.
 ..NK..R.R.R..R..LS..H..SIG.K..G..I...LQ...LG.Q...H.IKN.T..C..A.Y.SG..SA.
 ..NK.LEG...M...NP.S.H.KSSG.K.QT..T.....HG...A...H...T..C..AG..SDS...R
 ..NK.LEG...M...NP.S.H.KSSG.K.QT..T.....HG...H...T..C..AG..SDS...R
 ..NK..K..PLP..R..PLQ.H.RST..K..QG.Y.....Y.S.QAL..SIH.I.N.T..C.....SN...P.
 ..NK..K..PLP..R..PLQ.H.RST..K..QG.Y.....Y.S.Q.L..S.H.I.N.T..C.....SN...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RST..K..QG.Y.....YHS...H.I.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RST..K..QG.Y.....YHS...S.H.I.N.T..CN.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y..V...YHG...S.H.I.N.T..C.....SD...P.
 ..NK..K..PLP..R..P.Q.H.RSA..K..QG.Y..V...YHG...S.H.M.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RST..K..QG.Y.....YHS...S.HCI.N.T..C.....SD...P.
 ..NK.S.K..PLP..R..PLQ.H.NRST..K..QG.Y.....YHS...S.H.I.N.T..C.....SD.V.P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.....HG...S.H.I.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.....HG...S.H.I.N.T..C.....SD...P.
 ..STT..N..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.N.T..C.....SD...P.
 ..STT..N..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.N.T..C.....SD...P.
 ..SKTL.N..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.N.T..C.....SD...P.
 ..SK..K..PLP..R..LLQ.H.RST..K..QG.Y.L.D...YHS...GS.HCI.N.T..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RST..K..QG.Y.....YHS...S.HH..N.T.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.NKT..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.NKT..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.NKT..C.....SD...P.
 ..NK..K..PLP..R..PLQ.H.RSA..K..QG.Y.....YHG...S.H.I.NKT..C.....SD...P.
 ..NKT..K..PLP..R..NPLQ.H.RSA..K..QG.Y.....HG...N..H.I.N.T..CM.....SD...D.
 ..NKT..K..PLP..R..NPLQ.H.RSA..K..QG.Y.....HG...N..H.I.N.T..CM.....SD...D.
 ..NKT..K..PLP..R..NPLQ.H.RSA..K..QG.Y.....HG...N..H.I.N.T..CM.....SD...LD.
 ..NK..R..LP..R..LLQ.H.RSA..K..QG.Y..S...A.HG.L..N..H.I.N.T..C.....SD...A.
 ..NK..K.NPRQ..R..LLQ.H.RST..K..QG.Y.....YHS.LAL..SIH.I.N.T..C..A..SD...P.
 ..KFF.N.T.....LL..H.KSA..K.....V.....G.....Y.VN.TG.C..A.Y.SD...P.
 ..RKP..K.....R.P..H.KSA..K.P.....G.....IH.VN.TG.C..A.Y.D...P.
 ..GE.TG.T.R.....SH..K.D..I..TQ.GT..K..DH..K...H..N.A..H.HIG.GPE..A.
 ..GE.TG.T.R.....SH..K.D..I..TQ.GT..K..DH..K...H..N.A..H.HIG.GPE..A.
 ..GE.TG.T.R.....SH..K.D..I..TQ.GT..K..DH..K...H..N.A..H.HIG.GPE..A.
 ..NK..R..R..L..R..KSA.V.FQ...T...L...HG-I..--IH.I.N.T..CR.A...SD...A.

AF378705_UNDERSTEPOORT
KY971531_OVI_SA_2017
MMF926604_BJ16C9_DOG_CN_2017
AF305419_UNDERSTEPOORT
AF0114953_UNDERSTEPOORT
KY971529_BUCHAREST_SA_2017
JN896987_SNYDERHILL_1940
KM926612_CDVL_CN_1992
HM063009_SHUSKIY_MINK_KZ_1998
HM046486_PHOCACASPIAN2007_SEAL
S460_RACCOON_DE_2015
S272_FOX_DE_2016
S466_RACCOON_DE_2015
AY386315_5804_DOGV_DE_1989
MMF437053_GABON_DOG_GA_2015
KM280689_251_DOG_UY_2012
KKX434626_LDMBTU2_BR_2013
MH426739_LDMBTU1_FOX_BR_2014
MH382872_LDMBTU5_BR_2013
MH349541_LDMBTU3_BR_2013
AY466011_2654_RACCOON_US_1998
AY443350_2601_RACCOON_US_2000
EU716337_164071_DOG_US_2004
AY6169446_2689_RACCOON_US_2001
AF164967_A7517_DOGV_US_1975
KJ123771_171391513_DOG_US_2004
KU666057_RHODEISLAND_RACCOON_U
KF640687_R252_DOGV_US_1974
KU578257_SE_DOG_TZ_1994
KU578256_SNP_LION_TZ_1994
KU578255_SNP_HYENA_TZ_1994
KU578254_SE_JACKAL_TZ_2011
KU578253_SE_DOG_TZ_2007
AB474397_007LM_DOG_JP_2004
AB475099_55L_DOG_JP_2009
AB476401_011C_DOG_JP_2004
AB490672_009LH_DOGH_JP_2004
AB490678_50CBLH_DOGH_JP_2009
KF914669_2784_DOG_IT_2013
KX024709_12254_BADGER_IT_2015
22458_DOG_SPA_2016
KKX774415_PT61_TIGER_RU_2004
BAIKAL_SEAL_RU_1988
MH496772_1_DOG_TH_2014
MH496773_2_DOG_TH_2014
MH496777_6_DOG_TH_2014

FIG. 13 (cont.)

MH496778_7 DOG_TH_2014	RD.DG..H.A.....QE...LSK...S.TD..F.....I...I.....
MH496775_3 DOG_TH_2014	RD.DG..H.A.....QE...LFK...S.TD..F.....I...I.....
KJ747372_2262 DOG_US_2013	.D...G..H.TL.GI.Q...REFK...ST.TSP.P.....I.....E.....
KJ747371_1941 FOX_US_2013	.D...G..H.TL..I.Q...REFK...ST.TSP.P.....I.....E.....
KJ466106_SY_RACCOONDOG_CN_2012	RD..G..H.T...TQ..S.WFK.W.S..T.A.....I.....
MH496775_4 DOG_TH_2014	RD..G..HYT...TQ..S.WFK.W.S..T.A.....I.....
JN896331_PS_DOGV_CN_2010	RD..G..H.T...TQ..S.WFK...S.T.A.....I.....
AB753775_AC96I_DOG_JP_2004	RD..G..H.T...TQ..S.WFK...S.T.A.....I.....
MK431532_NTU_DOG_TW_2005	RD..G..H.T...TQ..S.WFK...S.T.A.....I.....
KC427278_HEBEI_MINK_CN_2008	RD..G..H.T...TQ..S.WFK.W.S..T.A.....I.....
MH496776_5 DOG_TH_2014	RD..G..H.T...TQ..S.WFK.W.S..T.A.....I.....
KP765764_LN1_FOX_CN_2010	RD..G..H.T...TR..S.WFK...S.T.A.P.Y.....I.....
KX347928_AH_DOG_CN_2015	RD.KG..H.T...TR..S.WFK...S.T.A.P.Y.....I.....
MH496779_8 DOG_TH_2014	RD..G..H.T...TQ..S.WFK.W.S..T.A.....I.....
JX681125_HLJ1_FOX_CN_2006	RD..D..H.T...TQ..S.WFK.W.S..T.A.....I.....
KP793921_GIANTPANDASX_CN_2014	RD..G..H.T...TQ..S.WFK...S.T.A..Y.....I..T.....
KP677502_LOUGUANTAIL_PANDA_CN	RD..G..H.T...TQ..S.WFK...S.T.A..Y.....I..T.....
KP765763_SD7_FOX_CN_2014	RD..G..H.T...TR..S.WFK...S.T.A..H.....I.....
KP738610_SD11_RACCOONDOG_CN_20	RD..G..H.T...TR..S.WFK...S.T.A..Y.....I.....
MH337872_SD16F_FOX_CN_2016	RD..G..H.T...TR..S.WFK...S.T.A..Y.....I..T.....
KX499865_ZYL_FOX_CN_2015	RD..G..H.T...TQ..S.WFK.W.S..T.A.....I.....
MF041963_CDV06_WOLF_ET_2016	RD..G..H.T..N.TQ..S.WFK.W.S..T.A.....I.....
KJ848781_RDJL_RACCOONDOG_CN_20	RD..G..FH.T...TR..S.WFK...Y.T.A..Y.....I.....
KX709880_HL001_DOG_CN_2012	RD..G..H.T...TR..S.WFK...S.T.A..Y.....I.....
LC159587_HCM33_DOG_VN_2014	RD..G..H.T...TQ..SS.WCK.W.S..T.A.....I.....
AB687720_CYN07DV_MACAQUE_JP_20	RD..G..H.T...TQ..VGFWFK..RS..T.A.....I.....
KF856711_BJ01_MONKEY_CN_2006	RD..G..H.T...TQ..VGFWFK..RS..T.A.....I.....
HM852904_MKYKM08_MACAQUE_CN_20	RD..G..H.T...TQ..VGFWFK..RS..T.A.....I.....
LC342298_RC13_RACCOON_JP_2016	RD..G..H.T..G.TQ..S.WFK...S.S.P.....I.....
KJ994343_ZC_RACCOONDOGV_CN_201	RD..G..H.T...TQ..G.WLK.W.S..T.A.....I.....V...
KY971532_WT02_HYENA_SA_2017	.D..GTVL.T...Q.M..WPKG..S...TD.H.A.....I.....
KY971528_WT01_DOG_SA_2016	.D..GTVL.T...Q.V..KPKG..S...IA.H.A..I...I.....
PC0046_SEAL_KZ_2000	.D...TT...A...K..L...SD.....F.M.....
PC0020_SEAL_KZ_2000	.D...TT...A...K..L...SD.....F.T.....
PC0021_SEAL_AZ_2000	.D...TT...A...K..L...SD.....F.T.....
MH316137_1747_DOG_IT_2018	.D..G..H.T...Q..GPRLKQORY..T.....I...G.....

AF378705_UNDERSTEPOORT
KY971531_OVI_SA_2017
MF926604_BJ16C9_DOG_CN_2017
AF305419_UNDERSTEPOORT
AF0114953_UNDERSTEPOORT
KY971529_BUCHAREST_SA_2017
JN896987_SNYDERHILL_1940
KM926612_CDVL_CN_1992
HM063009_SHUSKIY_MINK_KZ_1998
HM046486_PHOCACASPIAN2007_SEAL
SA460_RACCOON_DE_2015
S272_FOX_DE_2016
S466_RACCOON_DE_2015
AY386315_5804_DOGV_DE_1989
MF437053_GABON_DOG_GA_2015
KM280689_251_DOG_UY_2012
KK434626_LDMBTU2_BR_2013
MH426739_LDMBTU1_FOX_BR_2014
MH382872_LDMBTU5_BR_2013
MH349541_LDMBTU3_BR_2013
AY466011_2654_RACCOON_US_1998
AY443350_2601_RACCOON_US_2000
EU716337_164071_DOG_US_2004
AY649446_2689_RACCOON_US_2001
AF164967_A7517_DOGV_US_1975
KJ123771_171391513_DOG_US_2004
KU666057_RHODEISLAND_RACCOON_US
KF640687_R252_DOGV_US_1974
KU578257_SE_DOG_TZ_1994
KU578256_SNP_LION_TZ_1994
KU578255_SNP_HYENA_TZ_1994
KU578254_SE_JACKAL_TZ_2011
KU578253_SE_DOG_TZ_2007
AB474397_007LM_DOG_JP_2004
AB475099_55L_DOG_JP_2009
AB476401_011C_DOG_JP_2004
AB490672_009LH_DOGH_JP_2004
AB490678_50CBLH_DOGH_JP_2009
KF914669_2784_DOG_IT_2013
KKX024709_12254_BADGER_IT_2015
22458_DOG_SPA_2016
KX774415_PT61_TIGER_RU_2004
BAIKAL_SEAL_RU_1988
MH496772_1_DOG_TH_2014
MH496773_2_DOG_TH_2014
MH496777_6_DOG_TH_2014

[illegible]

FIG. 13 (cont.)

MH496778_7_DOG_TH_2014	RT	N	V
MH496775_3_DOG_TH_2014	RT	N	I
KJ747372_2262_DOG_US_2013			V
KJ747371_1941_FOX_US_2013	A	I	V
KJ466106_SY_RACCOONDOG_CN_2012		N	V
MH496775_4_DOG_TH_2014		N	V
JN896331_PS_DOGV_CN_2010		N	V
AB753775_AC96I_DOG_JP_2004		N	V
MK431532_NTU_DOG_TW_2005		N	V
KC427278_HEBEI_MINK_CN_2008		N	V
MH496776_5_DOG_TH_2014		N	V
KP765764_LN1_FOX_CN_2010		N	V
KX347928_AH_DOG_CN_2015		N	V
MH496779_8_DOG_TH_2014		H	V
JX681125_HLJ1_FOX_CN_2006		I	V
KP793921_GIANTPANDASX_CN_2014		S	AV
KP677502_LOUGUANTAIL_PANDA_CN		S	AV
KP765763_SD7_FOX_CN_2014		N	V
KP738610_SD11_RACCOONDOG_CN_20		N	V
MH337872_SD16F_FOX_CN_2016		N	V
KX499865_ZYL_FOX_CN_2015		N	V
MF041963_CDV06_WOLF_ET_2016		N	V
KJ848781_RDJL_RACCOONDOG_CN_20		N	V
KX709880_HL001_DOG_CN_2012		N	V
LC159587_HCM33_DOG_VN_2014		N	V
AB687720_CYN07DV_MACAQUE_JP_20		N	V
KF856711_BJ01_MONKEY_CN_2006		N	V
HM852904_MKYKM08_MACAQUE_CN_20		N	V
LC342298_RC13_RACCOON_JP_2016		N	V
KJ994343_ZC_RACCOONDOGV_CN_201		N	V
KY971532_WT02_HYENA_SA_2017	V	N	V
KY971528_WT01_DOG_SA_2016		N	V
PC0046_SEAL_KZ_2000		I	I
PC0020_SEAL_KZ_2000		RS	K
PC0021_SEAL_AZ_2000		RS	K
MH316137_1747_DOG_IT_2018	I	RS	K
			V

FIG. 13 (cont.)

AF378705_UNDERSTEPOORT
KY971531_OVI_SA_2017
MF926604_BJ16C9_DOG_CN_2017
AF305419_UNDERSTEPOORT
AF014953_UNDERSTEPOORT
KY971529_BUCHAREST_SA_2017
JN896987_SNYDERHILL_1940
KM926612_CDLV_CN_1992
HM063009_SHUSKIY_MINK_KZ_1998
HM046486_PHOCACASPIAN2007_SEAL
SA460_RACCOON_DE_2015
S272_FOX_DE_2016
SA466_RACCOON_DE_2015
AY386315_5804_DOGV_DE_1989
MF437053_GABON_DOG_GA_2015
KM280689_251_DOG_UY_2012
KK434626_LDMBTU2_BR_2013
MH426739_LDMBTU1_FOX_BR_2014
MH382872_LDMBTU5_BR_2013
MH349541_LDMBTU3_BR_2013
AY466011_2654_RACCOON_US_1998
AY443350_2601_RACCOON_US_2000
EU716337_164071_DOG_US_2004
AY649446_2689_RACCOON_US_2001
AF164967_A7517_DOGV_US_1975
KJ123771_171391513_DOG_US_2004
KU666057_RHODEISLAND_RACCOON_US_2004
KF640687_R252_DOGV_US_1974
KU578257_SE_DOG_TZ_1994
KU578256_SNP_LION_TZ_1994
KU578255_SNP_HYENA_TZ_1994
KU578254_SE_JACKAL_TZ_2011
KU578253_SE_DOG_TZ_2007
AB474397_007LM_DOG_JP_2004
AB475099_55L_DOG_JP_2009
AB476401_011C_DOG_JP_2004
AB490672_009LH_DOGH_JP_2004
AB490678_50CBLH_DOGH_JP_2009
KF914669_2784_DOG_IT_2013
KKX024709_12254_BADGER_IT_2015
22458_DOG_SPA_2016
KX774415_PT61_TIGER_RU_2004
BAIKAL_SEAL_RU_1988
MH496772_1_DOG_TH_2014
MH496773_2_DOG_TH_2014
MH496777_6_DOG_TH_2014

[illegible]

FIG. 13 (cont.)

MH496778	7	DOG	TH	2014		K.
MH496775	3	DOG	TH	2014	L	K.
KJ747372	2262	DOG	US	2013		K.
KJ747371	1941	FOX	US	2013		K.
KJ466106	SY	RACCOOND	OG	CN_2012	A	K.
MH496775	4	DOG	TH	2014	A	K.
JN896331	PS	DOGV	CN	2010		K.
AB753775	AC96I	DOG	JP	2004		K.
MK431532	NTU	DOG	TW	2005		K.
KC427278	HEBEI	MINK	CN	2008		K.
MH496776	5	DOG	TH	2014		K.
KP765764	LN1	FOX	CN	2010		K.
KX347928	AH	DOG	CN	2015		K.
MH496779	8	DOG	TH	2014		K.
JX681125	HLJ1	FOX	CN	2006	A	K.
KP793921	GIANTPANDAS	X	CN	2014		K.
KP677502	LOUGUANTAI1	PANDA	CN			K.
KP765763	SD7	FOX	CN	2014		K.
KP738610	SD11	RACCOOND	OG	CN_20		K.
MH337872	SD16F	FOX	CN	2016		K.
KX499865	ZYL	FOX	CN	2015		K.
MF041963	CDV06	WOLF	ET	2016		K.
KJ848781	RDJL	RACCOOND	OG	CN_20		K.
KX709880	HL001	DOG	CN	2012		K.
LC159587	HCM33	DOG	VN	2014	V	K.
AB687720	CYN07DV	MACAQUE	JP	20		K.
KF856711	BJ01	MONKEY	CN	2006		K.
HM852904	MKYKM08	MACAQUE	CN	20	N	K.
LC342298	RC13	RACCOON	JP	2016		K.
KJ994343	ZC	RACCOOND	OGV	CN_201		K.
KY971532	WT02	HYENA	SA	2017		K.
KY971528	WT01	DOG	SA	2016	A	K.
PC0046	SEAL_KZ	2000			I	K.
PC0020	SEAL_KZ	2000			I	K.
PC0021	SEAL_AZ	2000			I	K.
MH316137	1747	DOG	IT	2018	S	K.

AF378705_ ONDERSTEPOORT
KY971531_OVI_SA_2017
MF926604_BJ16C9_DOG_CN_2017
AF305419_ONDERSTEPOORT
AF014953_ONDERSTEPOORT
KY971529_BUCHAREST_SA_2017
JN896987_SNYDERHILL_1940
KM926612_CDLV_CN_1992
HM063009_SHUSKIY_MINK_KZ_1998
HM046486_PHOCACASPIAN2007_SEAL
S460_RACCOON_DE_2015
S272_FOX_DE_2016
S466_RACCOON_DE_2015
AY386315_5804_DOGV_DE_1989
MF437053_GABON_DOG_GA_2015
KM280689_251_DOG_UY_2012
KX434626_LDMBTU2_BR_2013
MH426739_LDMBTU1_FOX_BR_2014
MH382872_LDMBTU5_BR_2013
MH349541_LDMBTU3_BR_2013
AY466011_2654_RACCOON_US_1998
AY443350_2601_RACCOON_US_2000
EU716337_164071_DOG_US_2004
AY649446_2689_RACCOON_US_2001
AF164967_A7517_DOGV_US_1975
KJ123771_171391513_DOG_US_2004
KU666057_RHODEISLAND_RACCOON_U
KF640687_R252_DOGV_US_1974
KU578257_SE_DOG_TZ_1994
KU578256_SNP_LION_TZ_1994
KU578255_SNP_HYENA_TZ_1994
KU578254_SE_JACKAL_TZ_2011
KU578253_SE_DOG_TZ_2007
AB474397_007LM_DOG_JP_2004
AB475099_55L_DOG_JP_2009
AB476401_011C_DOG_JP_2004
AB490672_009LH_DOGH_JP_2004
AB490678_50CBLH_DOGH_JP_2009
KF914669_2784_DOG_IT_2013
KX024709_12254_BADGER_IT_2015
22458_DOG_SPA_2016
KX774415_PT61_TIGER_RU_2004
BAIKAL_SEAL_RU_1988
MH496772_1_DOG_TH_2014
MH496773_2_DOG_TH_2014
MH496777_6_DOG_TH_2014

FIG. 13 (cont.)

MH496778	7 DOG TH 2014	.....	N.....	.....	L.....
MH496775	3 DOG TH 2014	.....	.....	.....	.....
KJ747372	2262 DOG US 2013	.....	V.....	.....	.....
KJ747371	1941 FOX US 2013	.....	.....	.....	.....
KJ466106	SY RACCOONDOG_CN_2012	.....	.....	.....	.....
MH496775	4 DOG TH 2014	.....	.....	.....	.....
JN896331	PS DOGV_CN 2010	.....	.....	.....	.....
AB753775	AC96I DOG JP 2004	.....	.....	.....	.....
MK431532	NTU DOG TW 2005	.....	.....	.....	.....
KC427278	HEBEI MINK_CN_2008	.....	.....	.....	.....
MH496776	5 DOG TH 2014	.....	.....	.....	.....
KP765764	LN1 FOX_CN 2010	.....	.....	.....	.....
KX347928	AH DOG_CN 2015	.....	.....	.....	.....
MH496779	8 DOG TH 2014	.....	.....	.....	.....
JX681125	HLJ1 FOX_CN 2006	.....	.....	.....	.....
KP793921	GIANTPANDASX_CN_2014	.....	.....	.....	.....
KP677502	LOUGUANTAIL_PANDA_CN	.....	.....	.....	.....
KP765763	SD7 FOX_CN 2014	.....	.....	.....	.....
KP738610	SD11_RACCOONDOG_CN_20	.....	.....	.....	.....
MH337872	SD16F FOX_CN 2016	.....	.....	.....	.....
KX499865	ZYL FOX_CN 2015	.....	.....	.....	.....
MF041963	CDV06_WOLF_ET_2016	.....	.....	.....	.....
KJ848781	RDJL_RACCOONDOG_CN_20	.....	.....	.....	.....
KX709880	HL001 DOG_CN 2012	.....	.....	.....	.....
LC159587	HCM33 DOG_VN_2014	.....	.....	.....	.....
AB687720	CYN07DV_MACAQUE_JP_20	.....	.....	.....	.....
KF856711	BJ01_MONKEY_CN_2006	.....	.....	.....	.....
HM852904	MKYKM08_MACAQUE_CN_20	.....	.....	.....	.....
LC342298	RC13_RACCOON_JP_2016	.....	.....	.....	.....
KJ994343	ZC_RACCOONDOG_CN_201	.....	.....	.....	.....
KY971532	WT02_HYENA_SA_2017	.....	.....	.....	.....
KY971528	WT01 DOG_SA_2016	.....	.....	.....	.....
PC0046	SEAL_KZ_2000	.....	.....	.....	.....
PC0020	SEAL_KZ_2000	.....	.....	.....	.....
PC0021	SEAL_AZ_2000	.....	.....	.....	.....
MH316137	1747 DOG_IT_2018	.....	.....	.....	.....

FIG. 13 (cont.)

AF378705_UNDERSTEPOORT
KY971531_OVI_SA_2017
MF926604_BJ16C9_DOG_CN_2017
AF305419_UNDERSTEPOORT
AF0114953_UNDERSTEPOORT
KY971529_BUCHAREST_SA_2017
JN896987_SNYDERHILL_1940
KM926612_CDVL_CN_1992
HM063009_SHUSKIY_MINK_KZ_1998
HM046486_PHOCACASPIAN2007_SEAL
SA460_RACCOON_DE_2015
S272_FOX_DE_2016
S466_RACCOON_DE_2015
AY386315_5804_DOGV_DE_1989
MF437053_GABON_DOG_GA_2015
KM280689_251_DOG_UY_2012
KK434626_LDMBTU2_BR_2013
MH426739_LDMBTU1_FOX_BR_2014
MH382872_LDMBTU5_BR_2013
MH349541_LDMBTU3_BR_2013
AY466011_2654_RACCOON_US_1998
AY443350_2601_RACCOON_US_2000
EU716337_164071_DOG_US_2004
AY649446_2689_RACCOON_US_2001
AF164967_A7517_DOGV_US_1975
KJ123771_171391513_DOG_US_2004
KU666057_RHODEISLAND_RACCOON_US
KF640687_R252_DOGV_US_1974
KU578257_SE_DOG_TZ_1994
KU578256_SNP_LION_TZ_1994
KU578255_SNP_HYENA_TZ_1994
KU578254_SE_JACKAL_TZ_2011
KU578253_SE_DOG_TZ_2007
AB474397_007LM_DOG_JP_2004
AB475099_55L_DOG_JP_2009
AB476401_011C_DOG_JP_2004
AB490672_009LH_DOGH_JP_2004
AB490678_50CBLH_DOGH_JP_2009
KF914669_2784_DOG_IT_2013
KKX024709_12254_BADGER_IT_2015
22458_DOG_SPA_2016
KX774415_PT61_TIGER_RU_2004
BAIKAL_SEAL_RU_1988
MH496772_1_DOG_TH_2014
MH496773_2_DOG_TH_2014
MH496777_6_DOG_TH_2014

[illegible]

FIG. 13 (cont.)

MH496778_7_DOG_TH_2014	V.....V.....
MH496775_3_DOG_TH_2014	V.....V.....
KJ747372_2262_DOG_US_2013	V.....V.....
KJ747371_1941_FOX_US_2013	V.....V.....
KJ466106_SY_RACCOONDOG_CN_2012	K.V.....I.....
MH496775_4_DOG_TH_2014	K.V.....I.....
JN896331_PS_DOGV_CN_2010	K.V.....I.....
AB753775_AC96I_DOG_JP_2004	K.V.....I.....
MK431532_NTU_DOG_TW_2005	K.V.....I.....
KC427278_HEBEI_MINK_CN_2008	K.V.....I.....
MH496776_5_DOG_TH_2014	K.V.....I.....
KP765764_LN1_FOX_CN_2010	K.V.....I.....
KX347928_AH_DOG_CN_2015	K.V.....I.....
MH496779_8_DOG_TH_2014	K.V...S.....I.....
JX681125_HLJ1_FOX_CN_2006	K.V.....I.....
KP793921_GIANTPANDASX_CN_2014	K.V.....I.....
KP677502_LOUGUANTAIL_PANDA_CN	K.V.....I.....
KP765763_SD7_FOX_CN_2014	K.V.....I.....
KP738610_SD11_RACCOONDOG_CN_20	K.V.....I.....
MH337872_SD16F_FOX_CN_2016	K.V.....I.....
KX499865_ZYL_FOX_CN_2015	K.V.....I.....
MF041963_CDV06_WOLF_ET_2016	K.V.....I.....
KJ848781_RDJL_RACCOONDOG_CN_20	K.V.....I.....
KX709880_HL001_DOG_CN_2012	K.V.....I.....
LC159587_HCM33_DOG_VN_2014	K.V.....I.....
AB687720_CYN07DV_MACAQUE_JP_20	K.V.....I.....
KF856711_BJ01_MONKEY_CN_2006	K.V.....I.....
HM852904_MKYKM08_MACAQUE_CN_20	K.V.....I.....
LC342298_RC13_RACCOON_JP_2016	K.V.....I.....
KJ994343_ZC_RACCOONDOG_CN_201	I.....L...P.S...F...RST...R....
KY971532_WT02_HYENA_SA_2017	V.....V.....L.....T...
KY971528_WT01_DOG_SA_2016	V.....V.....T...
PC0046_SEAL_KZ_2000	.....
PC0020_SEAL_KZ_2000	.....
PC0021_SEAL_AZ_2000	.....
MH316137_1747_DOG_IT_2018	V.....

FIG. 13 (cont.)

AF378705_UNDERSTEPOORT
KY971531_OVI_SA_2017
MF926604_BJ16C9_DOG_CN_2017
AF305419_UNDERSTEPOORT
AF0114953_UNDERSTEPOORT
KY971529_BUCHAREST_SA_2017
JN896987_SNYDERHILL_1940
KM926612_CDLV_CN_1992
HM063009_SHUSKIY_MINK_KZ_1998
HM046486_PHOCACASPIAN2007_SEAL
SA460_RACCOON_DE_2015
S272_FOX_DE_2016
S466_RACCOON_DE_2015
AY386315_5804_DOGV_DE_1989
MF437053_GABON_DOG_GA_2015
KM280689_251_DOG_UY_2012
KK434626_LDMBTU2_BR_2013
MH426739_LDMBTU1_FOX_BR_2014
MH382872_LDMBTU5_BR_2013
MH349541_LDMBTU3_BR_2013
AY466011_2654_RACCOON_US_1998
AY443350_2601_RACCOON_US_2000
EU716337_164071_DOG_US_2004
AY649446_2689_RACCOON_US_2001
AF164967_A7517_DOGV_US_1975
KJ123771_171391513_DOG_US_2004
KU666057_RHODEISLAND_RACCOON_US
KF640687_R252_DOGV_US_1974
KU578257_SE_DOG_TZ_1994
KU578256_SNP_LION_TZ_1994
KU578255_SNP_HYENA_TZ_1994
KU578254_SE_JACKAL_TZ_2011
KU578253_SE_DOG_TZ_2007
AB474397_007LM_DOG_JP_2004
AB475099_55L_DOG_JP_2009
AB476401_011C_DOG_JP_2004
AB490672_009LH_DOGH_JP_2004
AB490678_50CBLH_DOGH_JP_2009
KF914669_2784_DOG_IT_2013
KKX024709_12254_BADGER_IT_2015
22458_DOG_SPA_2016
KX774415_PT61_TIGER_RU_2004
BAIKAL_SEAL_RU_1988
MH496772_1_DOG_TH_2014
MH496773_2_DOG_TH_2014
MH496777_6_DOG_TH_2014

[illegible]

FIG. 13 (cont.)

MH496778_7_DOG_TH_2014	.....	S....
MH496775_3_DOG_TH_2014	.....	S....
KJ747372_2262_DOG_US_2013	S.....	SR...
KJ747371_1941_FOX_US_2013	.....	SR...
KJ466106_SY_RACCOONDOG_CN_2012	.....	S....
MH496775_4_DOG_TH_2014	.....	S....
JN896331_PS_DOGV_CN_2010	.....	S....
AB753775_AC96I_DOG_JP_2004	.....	S....
MK431532_NTU_DOG_TW_2005	.....	S....
KC427278_HEBEI_MINK_CN_2008	.....	S....
MH496776_5_DOG_TH_2014	.....	S....
KP765764_LN1_FOX_CN_2010	.....	S....
KX347928_AH_DOG_CN_2015	.....	S....
MH496779_8_DOG_TH_2014	.....	S....
JX681125_HLJ1_FOX_CN_2006	.....	S....
KP793921_GIANTPANDASX_CN_2014	.....	S....
KP677502_LOUGUANTAIL_PANDA_CN	.....	S....
KP765763_SD7_FOX_CN_2014	.....	ST...
KP738610_SD11_RACCOONDOG_CN_20	S.....	S....
MH337872_SD16F_FOX_CN_2016	.....	S....
KX499865_ZYL_FOX_CN_2015	.....	S....
MF041963_CDV06_WOLF_ET_2016	.....	S....
KJ848781_RDJL_RACCOONDOG_CN_20	.....	S....
KX709880_HL001_DOG_CN_2012	.....	S....
LC159587_HCM33_DOG_VN_2014	.....	SR...
AB687720_CYN07DV_MACAQUE_JP_20	I.....G.....	S....
KF856711_BJ01_MONKEY_CN_2006	I.....G.....	S....
HM852904_MKYKM08_MACAQUE_CN_20	I.....G.....	S....
LC342298_RC13_RACCOON_JP_2016	I.....	S....
KJ994343_ZC_RACCOONDOG_CN_201	L.....G.....D.....	S....
KY971532_WT02_HYENA_SA_2017	.....	A.....
KY971528_WT01_DOG_SA_2016	.....	S....
PC0046_SEAL_KZ_2000	.....	S....
PC0020_SEAL_KZ_2000	.....	S....
PC0021_SEAL_AZ_2000	.....	S....
MH316137_1747_DOG_IT_2018	G.....	S....

FIG. 13 (cont.)

AF378705_UNDERSTEPOORT
KY971531_OVI_SA_2017
MF926604_BJ16C9_DOG_CN_2017
AF305419_UNDERSTEPOORT
AF0114953_UNDERSTEPOORT
KY971529_BUCHAREST_SA_2017
JN896987_SNYDERHILL_1940
KM926612_CDVL_CN_1992
HM063009_SHUSKIY_MINK_KZ_1998
HM046486_PHOCACASPIAN2007_SEAL
S460_RACCOON_DE_2015
S272_FOX_DE_2016
S466_RACCOON_DE_2015
AY386315_5804_DOGV_DE_1989
MF437053_GABON_DOG_GA_2015
KM280689_251_DOG_UY_2012
KK434626_LDMBTU2_BR_2013
MH426739_LDMBTU1_FOX_BR_2014
MH382872_LDMBTU5_BR_2013
MH349541_LDMBTU3_BR_2013
AY466011_2654_RACCOON_US_1998
AY443350_2601_RACCOON_US_2000
EU716337_164071_DOG_US_2004
AY649446_2689_RACCOON_US_2001
AF164967_A7517_DOGV_US_1975
KJ123771_171391513_DOG_US_2004
KU666057_RHODEISLAND_RACCOON_US
KF640687_R252_DOGV_US_1974
KU578257_SE_DOG_TZ_1994
KU578256_SNP_LION_TZ_1994
KU578255_SNP_HYENA_TZ_1994
KU578254_SE_JACKAL_TZ_2011
KU578253_SE_DOG_TZ_2007
AB474397_007LM_DOG_JP_2004
AB475099_55L_DOG_JP_2009
AB476401_011C_DOG_JP_2004
AB490672_009LH_DOGH_JP_2004
AB490678_50CBLH_DOGH_JP_2009
KF914669_2784_DOG_IT_2013
KX024709_12254_BADGER_IT_2015
22458_DOG_SPA_2016
KX774415_PT61_TIGER_RU_2004
BAIKAL_SEAL_RU_1988
MH496772_1_DOG_TH_2014
MH496773_2_DOG_TH_2014
MH496777_6_DOG_TH_2014

[illegible]

FIG. 13 (cont.)

MH496778_7_DOG_TH_2014	I.....I.....C.....N
MH496775_3_DOG_TH_2014	I.....I.....C.....N
KJ747372_2262_DOG_US_2013	L.....I.....C.....N
KJ747371_1941_FOX_US_2013	L.....I.....P.....R.N
KJ466106_SY_RACCOONDOG_CN_2012	K.....I.....R..F.HN
MH496775_4_DOG_TH_2014	K.....I.....R..F.HN
JN896331_PS_DOGV_CN_2010	K.....I.....R..F.HN
AB753775_AC96I_DOG_JP_2004	K.....I.....R..F.HN
MK431532_NTU_DOG_TW_2005	K.....S.....R..F.HN
KC427278_HEBEI_MINK_CN_2008	N.....I.....R..F.HN
MH496776_5_DOG_TH_2014	K.....I.....R..F.HN
KP765764_LN1_FOX_CN_2010	K.....I.....R..F.HN
KX347928_AH_DOG_CN_2015	K.....I.....R..F.HN
MH496779_8_DOG_TH_2014	R.....I.....R..F.HN
JX681125_HLJ1_FOX_CN_2006	K.....I.....R..F.HN
KP793921_GIANTPANDASX_CN_2014	K.....I.....R..F.HN
KP677502_LOUGUANTAIL_PANDA_CN	K.....I.....R..F.HN
KP765763_SD7_FOX_CN_2014	K.....I.....G..R..F.HN
KP738610_SD11_RACCOONDOG_CN_20	K.....I.....R..F.HN
MH337872_SD16F_FOX_CN_2016	K.....I.....R..F.HN
KX499865_ZYL_FOX_CN_2015	R.....I.....R..F.HN
MF041963_CDV06_WOLF_ET_2016	K.....I.....R..F.HN
KJ848781_RDJL_RACCOONDOG_CN_20	K.....I.....R..F.HN
KX709880_HL001_DOG_CN_2012	K.....I.....R..F.HN
LC159587_HCM33_DOG_VN_2014	K.....I.....R..F.HN
AB687720_CYN07DV_MACAQUE_JP_20	K.....M.....R..F.HN
KF856711_BJ01_MONKEY_CN_2006	K.....M.....R..F.HN
HM852904_MKYKM08_MACAQUE_CN_20	K.....M.....R..F.HN
LC342298_RC13_RACCOON_JP_2016	I.....V.....R..F.HN
KJ994343_ZC_RACCOONDOG_CN_201	DK.....I.....R..R..F.HN
KY971532_WT02_HYENA_SA_2017	S.....R.....I..N
KY971528_WT01_DOG_SA_2016	I.....S.....R.....I..N
PC0046_SEAL_KZ_2000	I.....N.....R.....N
PC0020_SEAL_KZ_2000	I.....R.....R.....N
PC0021_SEAL_AZ_2000	I.....R.....R.....N
MH316137_1747_DOG_IT_2018	I.....F.....S

FIG. 13 (cont.)

AF378705	ONDERSTEPOORT	.....|.....|.....|.....|.....|.....	660
KY971531	OVI SA 2017	TKVDPFAFKPDLTGTSKSYVRS*	
MF926604	BJ16C9 DOG CN 2017	R.....*	
AF305419	ONDERSTEPOORT	*	
AF014953	ONDERSTEPOORT	*	
KY971529	BUCHAREST SA 2017	*	
JN896987	SNYDERHILL 1940	*	
KM926612	CDVL CN 1992	*	
HM063009	SHUSKIY MINK KZ 1998	*	
HM046486	PHOCACASPIAN2007_SEAL	*	
S460	RACCOON DE 2015	T.....*	
S272	FOX DE 2016	T.....*	
S466	RACCOON DE 2015	T.....*	
AY386315	5804 DOGV DE 1989	T.....*	
MF437053	GABON DOG GA 2015	R.....*	
KM280689	251 DOG UY 2012	T.....*	
KX434626	LDMBTU2 BR 2013	T.....*	
MH426739	LDMBTU1 FOX BR 2014	T.....*	
MH382872	LDMBTU5 BR 2013	T.....*	
MH349541	LDMBTU3 BR 2013	I.....*	
AY466011	2654 RACCOON US 1998	A.....*	
AY443350	2601 RACCOON US 2000	A.....*	
EU716337	164071 DOG US 2004	A.....*	
AY649446	2689 RACCOON US 2001	A.....*	
AF164967	A7517 DOGV US 1975	A.....*	
KJ123771	171391513 DOG US 2004	A.T.....K..*	
KU666057	RHODEISLAND_RACCOON_U	T.....*	
KF640687	R252 DOGV US 1974	T.....*	
KU578257	SE DOG TZ 1994	T.....*	
KU578256	SNP_LION TZ 1994	T.....*	
KU578255	SNP_HYENA TZ 1994	T.....*	
KU578254	SE JACKAL TZ 2011	LT.....*	
KU578253	SE DOG TZ 2007	LT.....*	
AB474397	007LM DOG JP 2004	T.....R.....*	
AB475099	55L DOG JP 2009	T.....R.....*	
AB476401	011C DOG JP 2004	T.....R.....*	
AB490672	009LH DOGH JP 2004	T.....A.R.....*	
AB490678	50CBLH DOGH JP 2009	T.....*	
KF914669	2784 DOG IT 2013	T.....A.....*	
KX024709	12254 BADGER IT 2015	T.....*	
22458	DOG SPA 2016	T.....*	
KX774415	FT61_TIGER RU 2004	T.....*	
BAIKAL	SEAL RU 1988	T.....*	
MH496772	1_DOG_TH_2014	T.....A.....*	

FIG. 13 (cont.)

MH496773	2	DOG	TH	2014	T.....*
MH496777	6	DOG	TH	2014	T.....*
MH496778	7	DOG	TH	2014	T.....*
MH496775	3	DOG	TH	2014	T.....*
KJ747372	2262	DOG	US	2013	P.....T.....*
KJ747371	1941	FOX	US	2013	P.....T.....*
KJ466106	SY	RACCOON	DOG	CN 2012	T.....*
MH496775	4	DOG	TH	2014	T.....*
JN896331	PS	DOGV	CN	2010	T.....*
AB753775	AC96I	DOG	JP	2004	T.....*
MK431532	NTU	DOG	TW	2005	T.....*
KC427278	HEBEI	MINK	CN	2008	T...V.....*
MH496776	5	DOG	TH	2014	T.....*
KP765764	LN1	FOX	CN	2010	T.....*
KX347928	AH	DOG	CN	2015	T.....*
MH496779	8	DOG	TH	2014	T.....*
JX681125	HLJ1	FOX	CN	2006	T.....*
KP793921	GIANTPANDASX	CN	2014	A..T.....*	
KP677502	LOUGUANTAIL	PANDA	CN		T.....*
KP765763	SD7	FOX	CN	2014	T.....*
KP738610	SD1I	RACCOON	DOG	CN 20	T.....*
MH337872	SD16F	FOX	CN	2016	T.....*
KX499865	ZYL	FOX	CN	2015	T.....*
MF041963	CDV06	WOLF	ET	2016	T.....*
KJ848781	RDJL	RACCOON	DOG	CN 20	T.....*
KX709880	HL001	DOG	CN	2012	T.....*
LC159587	HCM33	DOG	VN	2014	T.....*
AB687720	CYN07DV	MACAQUE	JP	20	T.....*
KF856711	BJ01	MONKEY	CN	2006	T.....*
HM852904	MKYRM08	MACAQUE	CN	20	T.....*
LC342298	RC13	RACCOON	JP	2016	P.....T.....*
KJ994343	ZC	RACCOON	DOGV	CN 201	A..T.....*
KY971532	WT02	HYENA	SA	2017	T.....*
KY971528	WT01	DOG	SA	2016	T.....*
PC0046	SEAL	KZ	2000		A..N.....*
PC0020	SEAL	KZ	2000		A..N.....*
PC0021	SEAL	AZ	2000		A..N.....*
MH316137	1747	DOG	IT	2018	T.....*

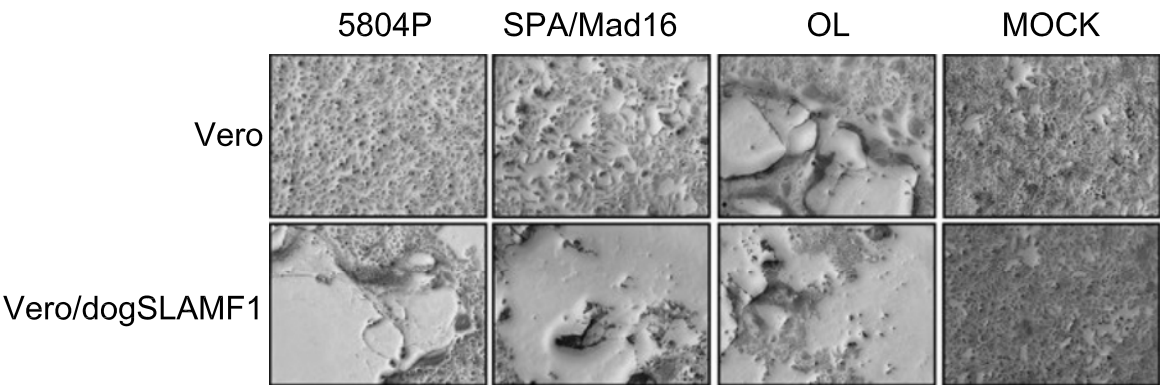


FIG. 14A

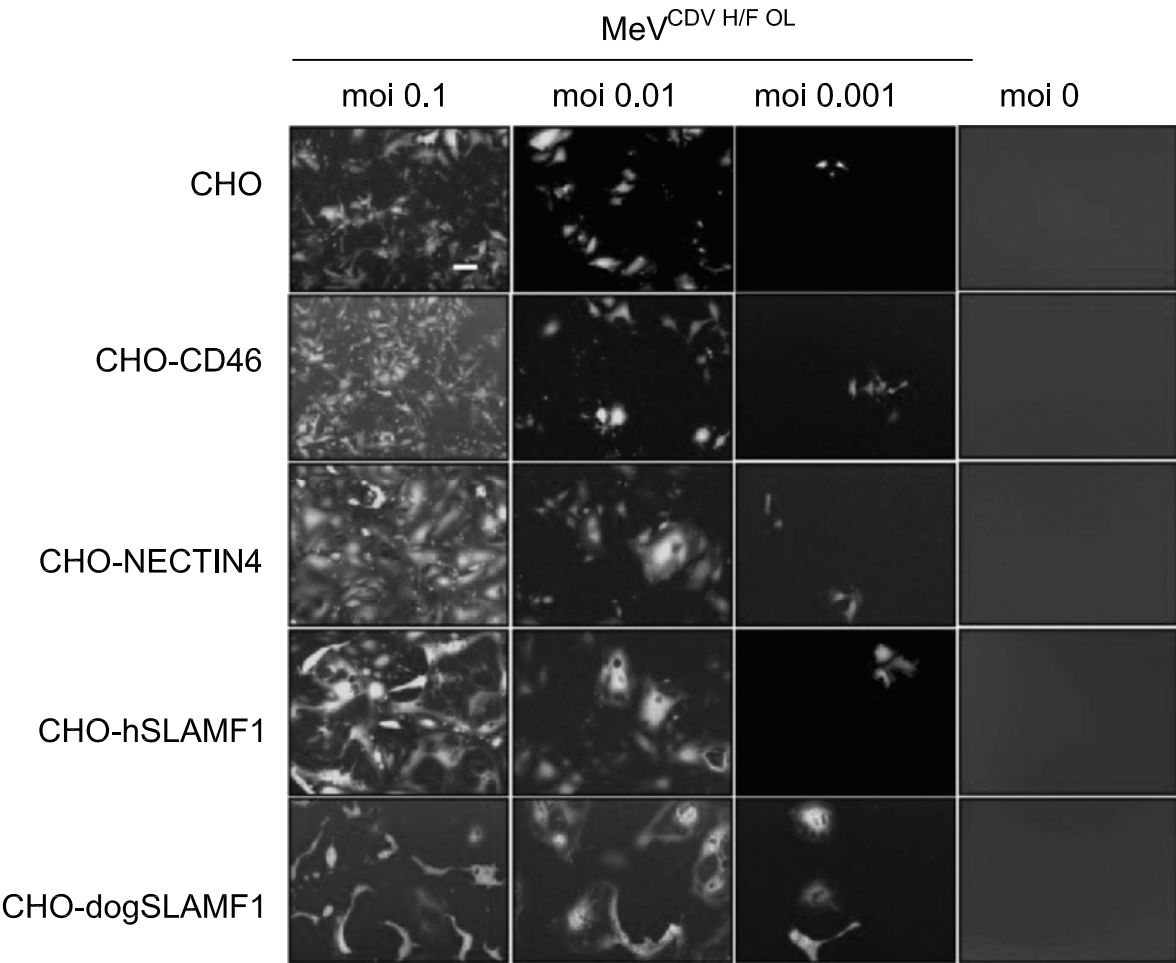


FIG. 14B

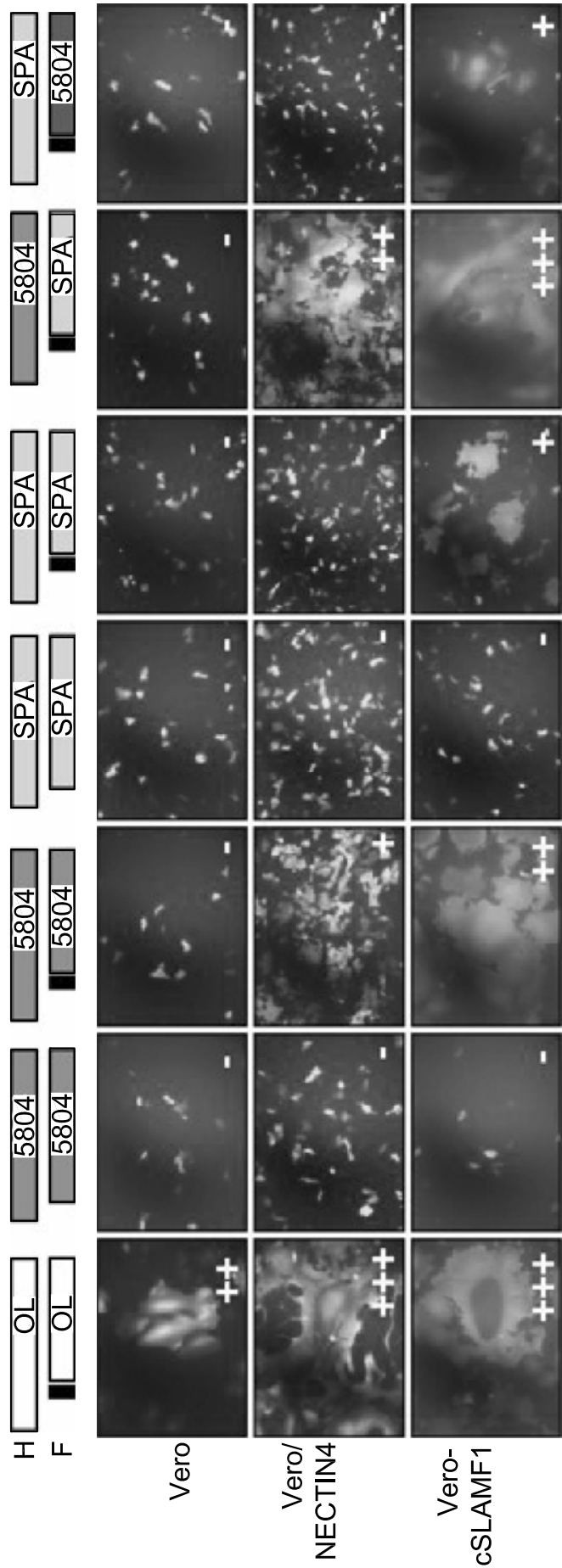


FIG. 15A

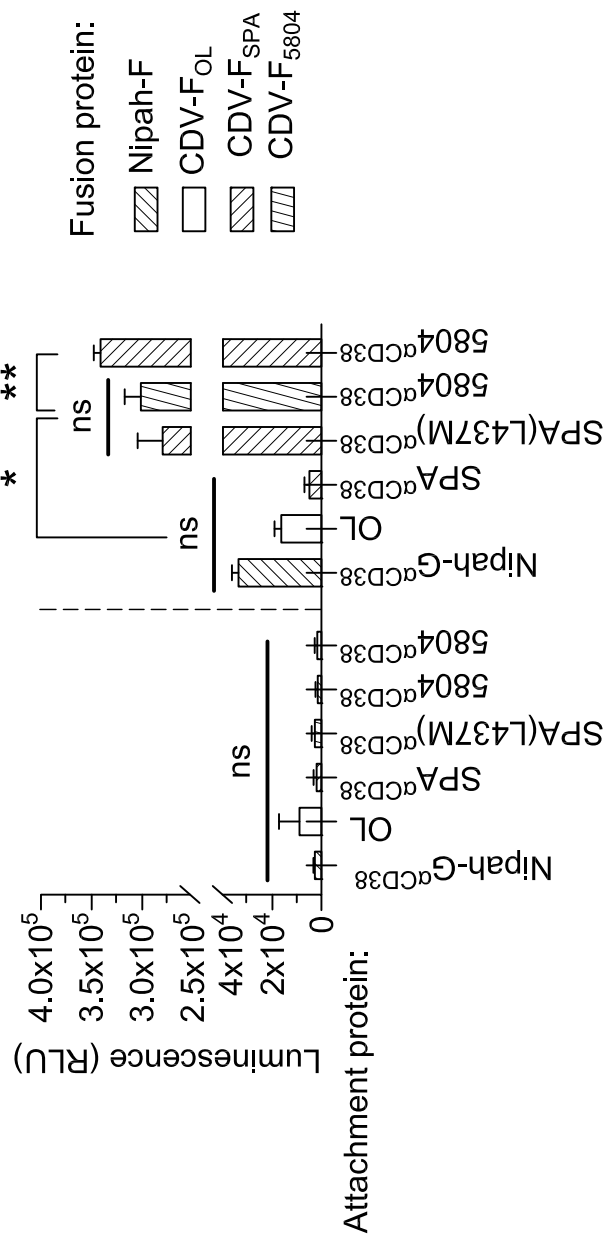


FIG. 15B

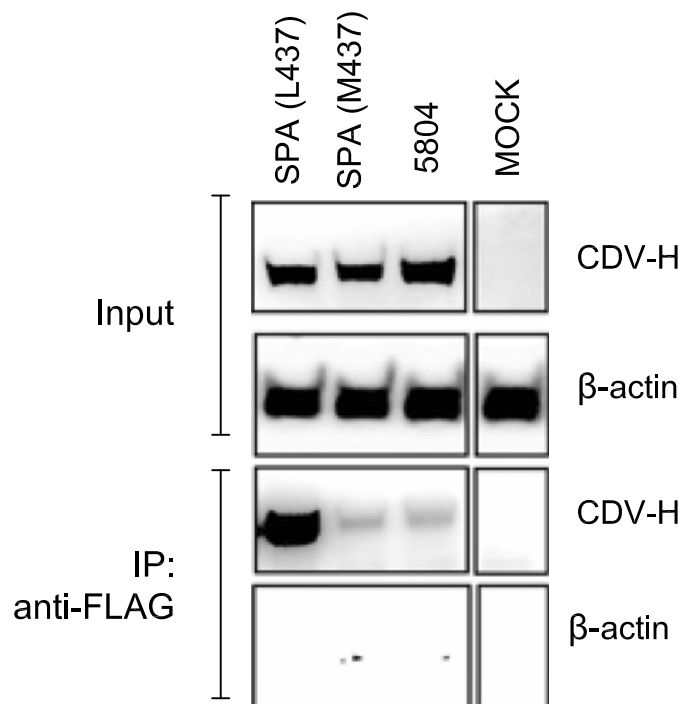


FIG. 15C

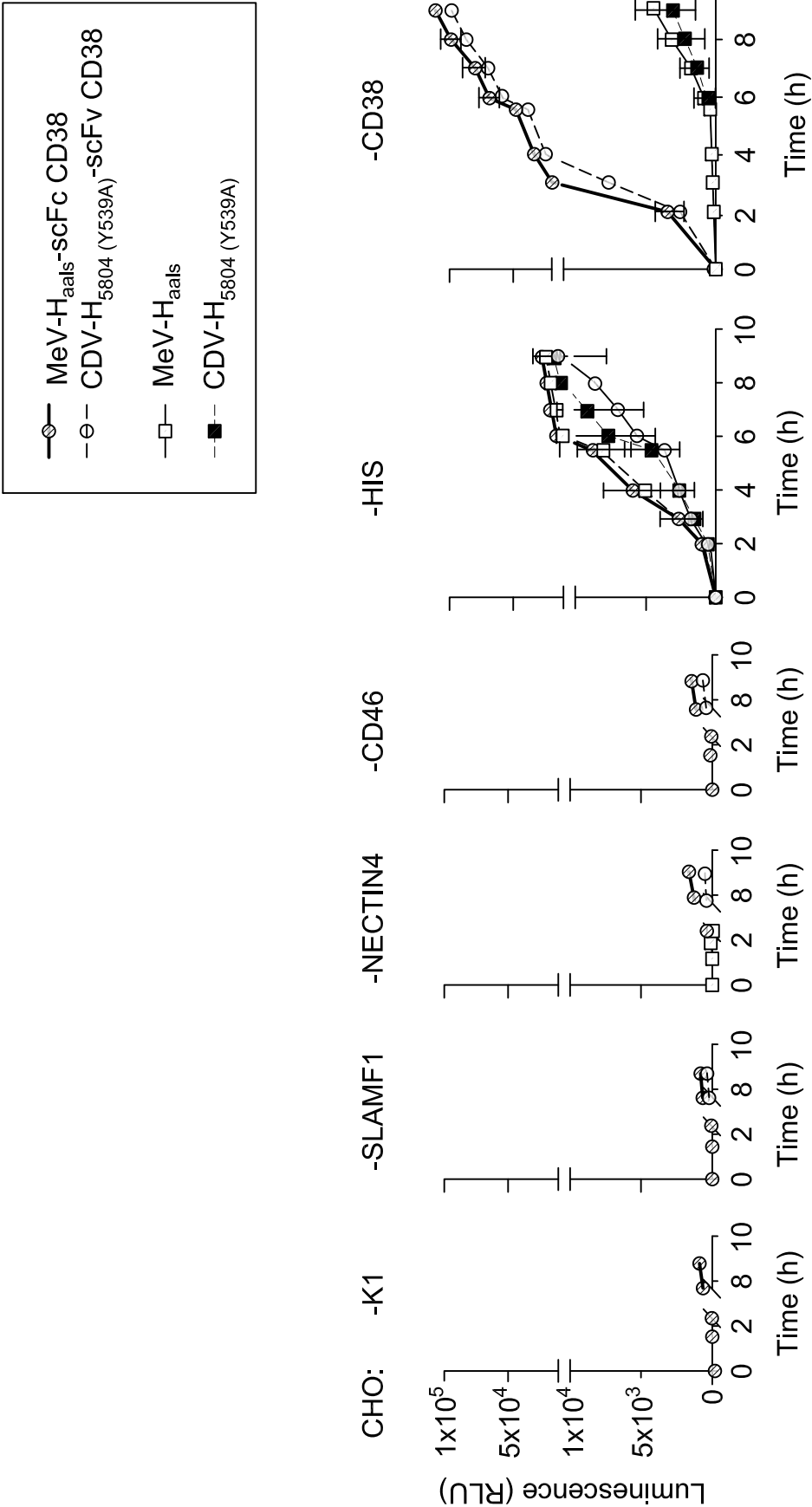


FIG. 15D

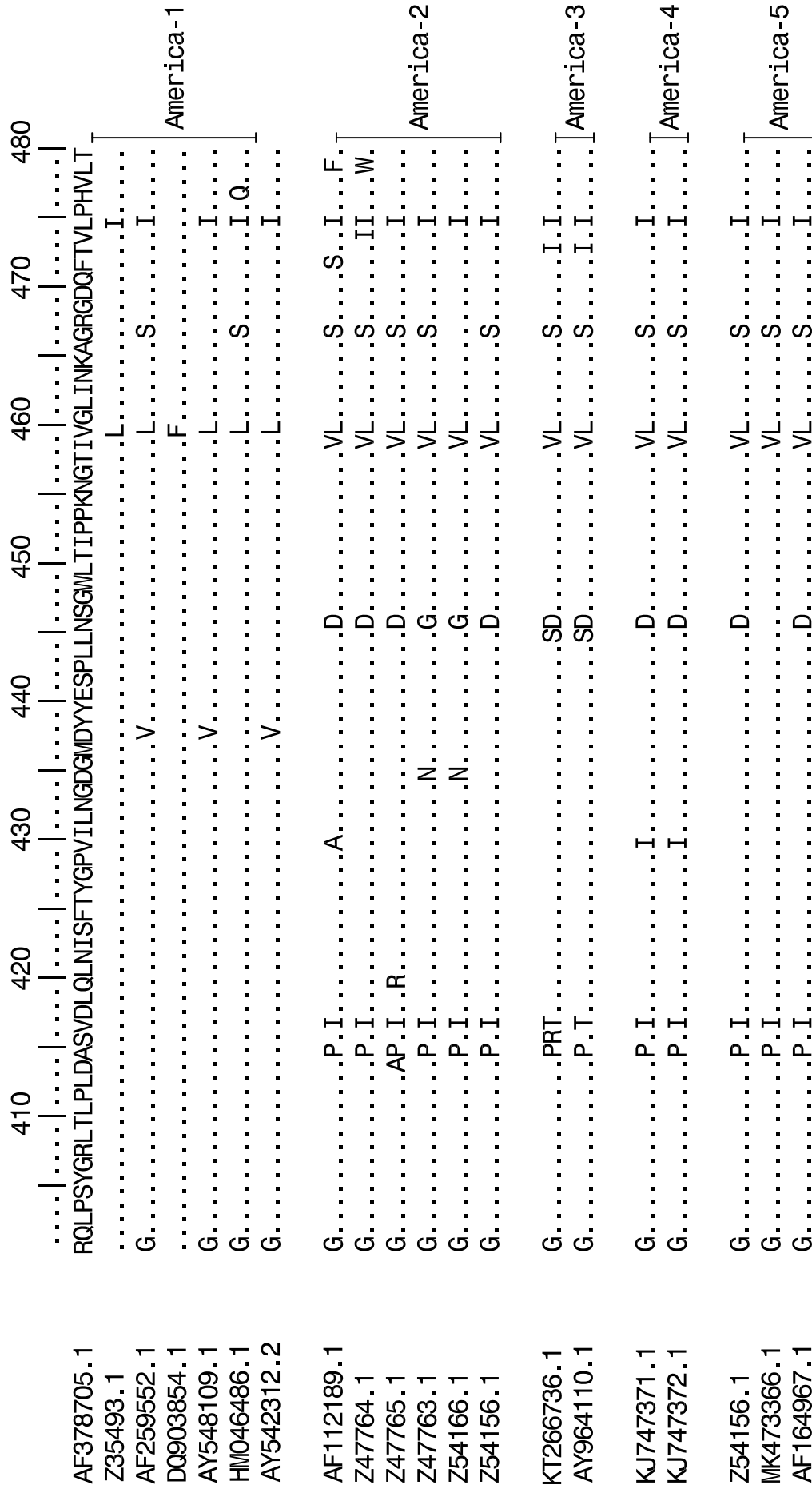


FIG. 16

KX024709.1	G.....H.....T.R.....N.....MD.....L.....S.....I.....S	Artic-like
Z47760.1	G.....I.R.....D.....L.....S.....I.....S	
KC966928.1	G.....H.....T.R.....N.....MD.....L.....S.....I.....S	
AF172411.1	G.....I.R.....D.....L.....S.....I.....S	
AY964108.1	G.....H.....I.R.....D.....L.....S.....I.....S	
DQ226087.1	G.....H.....I.R.I.....D.....L.....S.....I.....S	
MH430949.1	G.....V.I.....D.....L.....S.....I.....S	
SPA.Mad/22458/16	G.....H.....T.R.....N.....D.....L.....S.....I.....S	
GU266280.1	G.....P.I.....D.....VL.....S.....I.....	Rockborn-like
FJ461702.1	G.....P.I.....D.....VL.....S.....I.....	
AY964114.1	G.....H.....P.I.....D.....VL.....S.....I.....	
GU810819.1	G.....P.I.....D.....VL.....S.....I.....	
Z47759.1	G.....PGI.....D.....VL.....S.....R.....T.....	European Wildlife
GQ214374.2	G.....PDI.....DF.....VL.....S.....G.....I.....	
JN153023.1	G.....PGI.....D.....VL.....S.....I.....	
DQ889187.1	G.....L.....I.....L.....S.....T.....	
FJ392651.1	G.....P.I.....D.....VL.M.....S.....I.....	
DQ889188.1	G.....PGI.....I.....L.....S.....T.....	
JN153020.1	G.....PGI.....D.....VL.....S.....I.....	
AY386316.1_5804P	G.....P.I.....SD.....R.....VL.....S.....I.....	Europe1/South America-1
AY386315.1	G.....P.I.....SD.....R.....VL.....S.....I.....	
JN153024.1	G.....P.I.....SD.....VL.....S.....I.....	
FJ416338.1	G.....P.I.....V.....VL.....S.....I.....	
GU001863.1	G.....P.M.....PD.....VL.....S.....I.....	
XB5000.1	G.....P.I.....SD.....R.....VL.....S.....I.....	

FIG. 16(Continued)

KJ865300.1	G.....P.I.....T.SD.....L.....S.....I.....	South america-2
FJ392652.1	G.....W.....P.I.....V.....SD.....L.....S.....I.....	
EU098102.1	G.....P.I.....SD.....L.....S.....I.....	
MH362795.1	G.....P.I.....T.SD.....L.....S.....I.....	
JN215476.1	G.....PNI.....SD.....L.....I.....	
KF835412.1	G.....P.I.....H.....S.SD.....S.....VL.....S.....I.....	South america-3
KF835422.	G.....P.I.....H.....SD.....VL.....S.....I.....	
KF835411.1	G.....P.I.....H.....S.SD.....VL.....S.....I.....	
KY971528.1	G.....S.I.....D.....L.....S.....I.....	Africa-1
FJ461719.1	G.....I.....D.....L.....S.....I.....	
FJ461696.1	G.....I.....D.....VL.....S.....I.....	
KY971532.1	G.....I.....F.DP.....L.....S.....I.....	
KU578254.1	A..I.P.IH.....D.....D.....VL.....S.....I.....	Africa-2
KKU578255.1	I.P.I.....H.....D.....D.....VL.....S.....I.....	
KU578253.1	I.P.IH.....D.....D.....VL.....S.....I.....	
KU578254.1	A..I.P.IH.....D.....D.....VL.....S.....I.....	
AB025271.2	G.....P.I.....SD.....VL.....S.....T.....	Asia-1
DB5755.1	G.....L.P.I.....D.....V.....VL.....S.....T.....	
AB687720.2	G.....P.I.....Y.....D.....D.....VL.....S.....T.....	
EU564813.1	G.....P.I.....D.....D.....VL.....S.....T.....	
JQ732176.1	G.....P.....E.....VL.....S..H..T.....	
EU296484.1	G.....P.I.....A.....D.....VL.....S.....T.....	
KJ994343.1	G.....P.N.....E.....S.VL.....S.....T.....	
MH337872.1	G.....P.....E.....V.....VL.....S.....T.Y.....	

FIG. 16(Continued)

EU716073.1	V.....I.....D.....L.....S.....T.....	Asia-2
AB475099.1	V.....I.....N..D.....L.....S..K..T.....	
FJ868161.1	V.....H..I.....N..D.....L.....S.....T.....	
JQ732170.1	V.....I.....D.....L.....S.....I.....	
AY297453.12	V.....I.....N..D.....L.....S.....T.....	
AB025270.1	V.....I.....N..D.....L.....S.....T.....	
AB212730.1	V.....I.....N..D.....L.....S.....T.....	
EU743934.1	V.V.....ERI.....N..D.R.....L.....S.E.....TS.....	Asia-3
EU743935.1	V.V.....ERI.....N..D.R.....L.....S.E.....TS.....	
KJ489381.1	G.....P.I.....N.....I.D.....VL.....S.....V.....	Asia-4
KJ437596.1	G.....P.I.....N.....D.....VL.....R.S.....V.....	
KH496773.1	G.....P.I.....N.....I.D.....VL.....S.....V.....	
MF964178.1	P.I.....G.....DY.....VL.....S..E..I.....	Asia-5
MF964182.1	P.I.....G.....DY.....VL.....S..E..I.....	
MF964187.1	P.I.....G.....GY.....VL.....S.....I.....	
MF964181.1	P.I.....G.....DY.....VL.....S.....I.....	
MF964185.1	GR.....P.I..I.....G.....D.....VL.....S.....I.....	
MF964186.1	S.P.I.....G.....D.....VL.....S.....I.....	

FIG. 16(Continued)

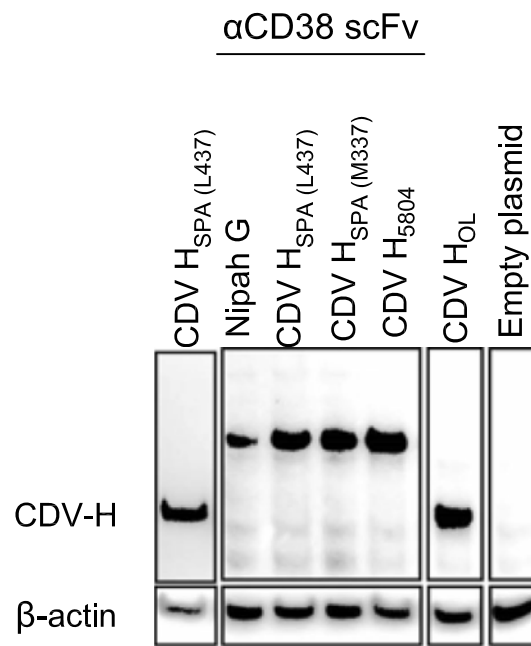


FIG. 17A

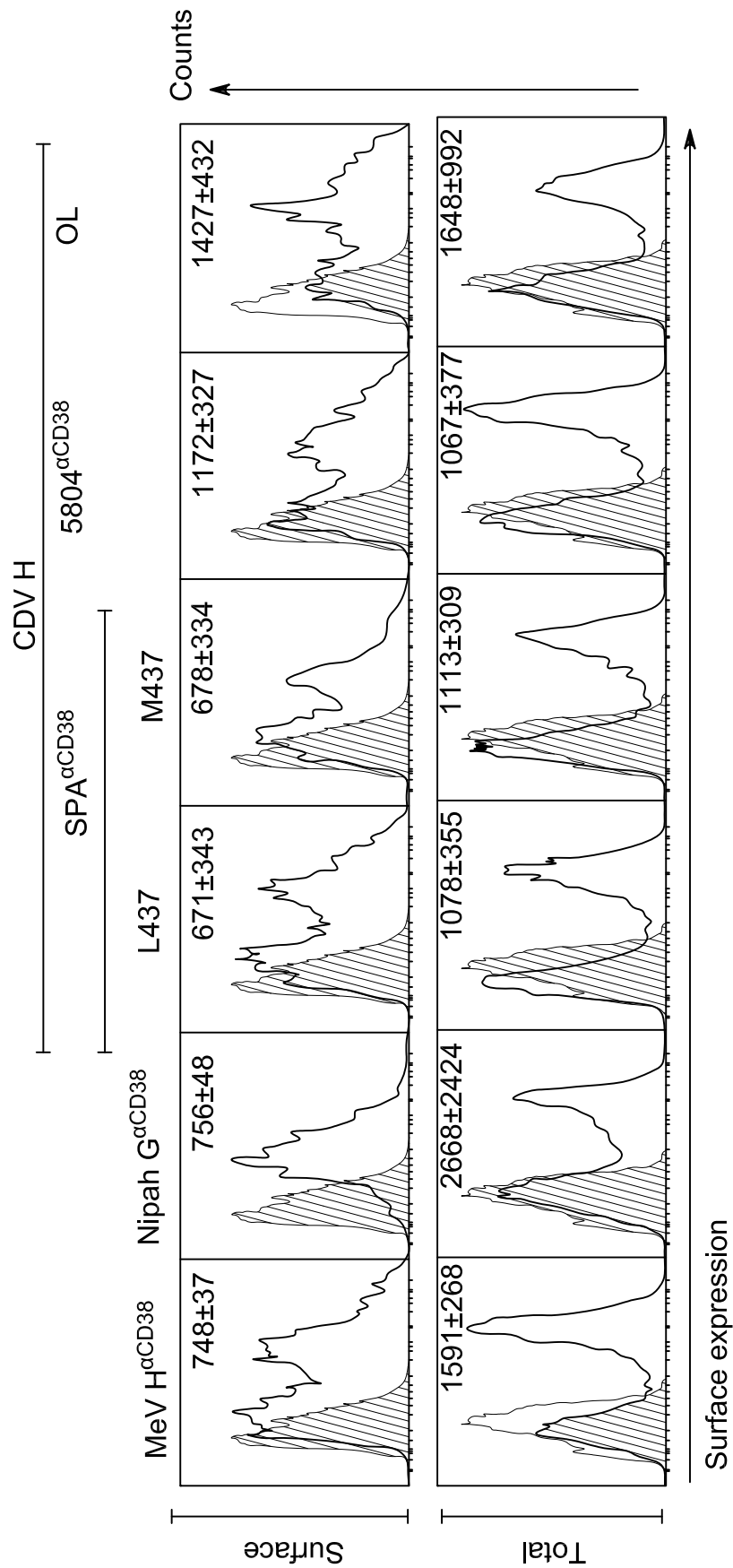


FIG. 17B

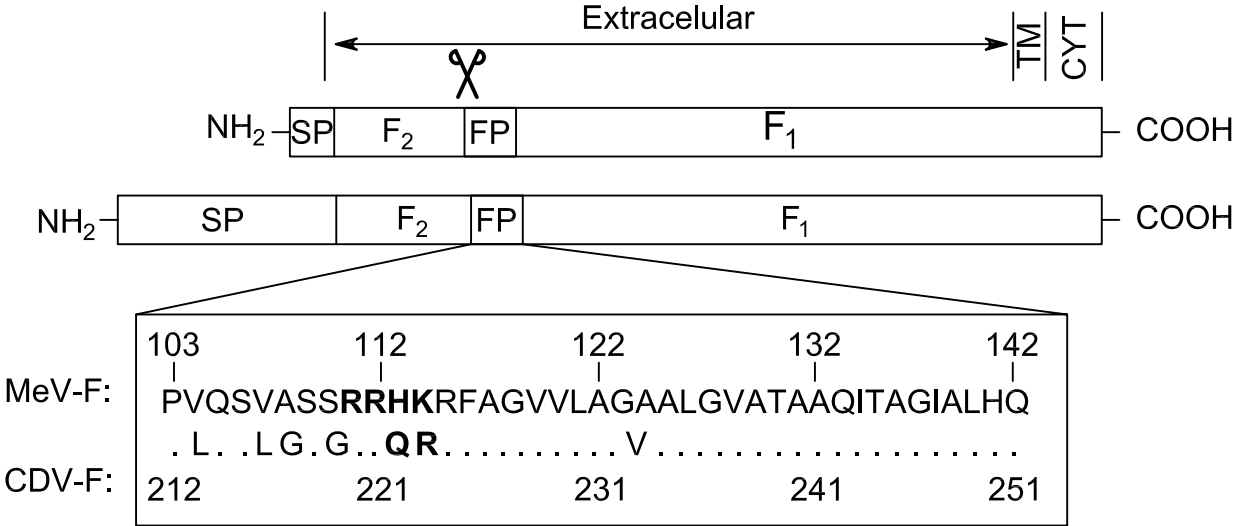


FIG. 18A

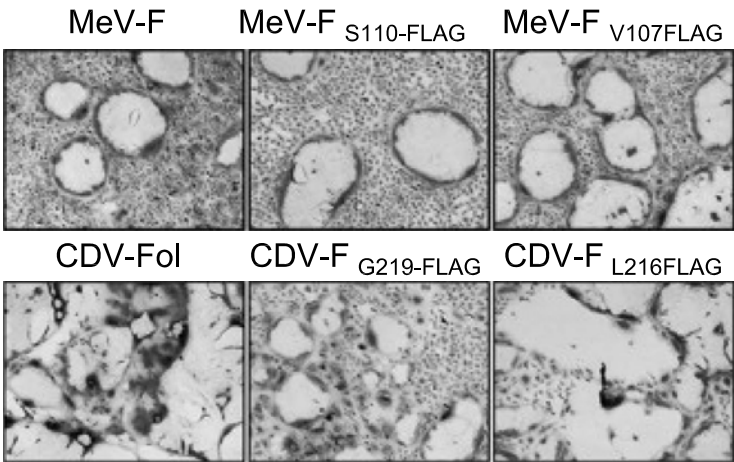


FIG. 18B

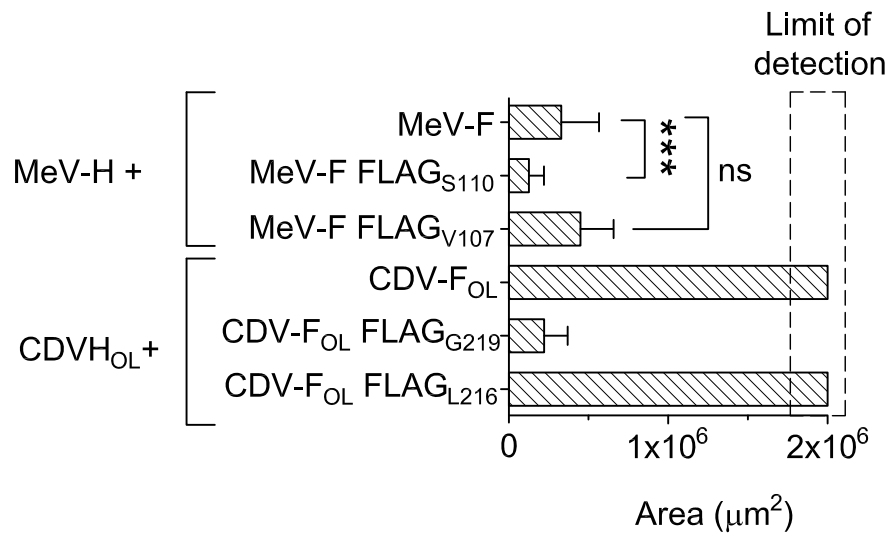


FIG. 18C

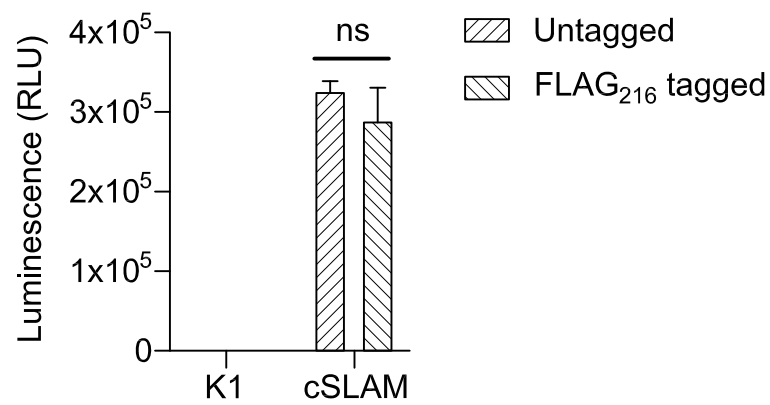


FIG. 18D

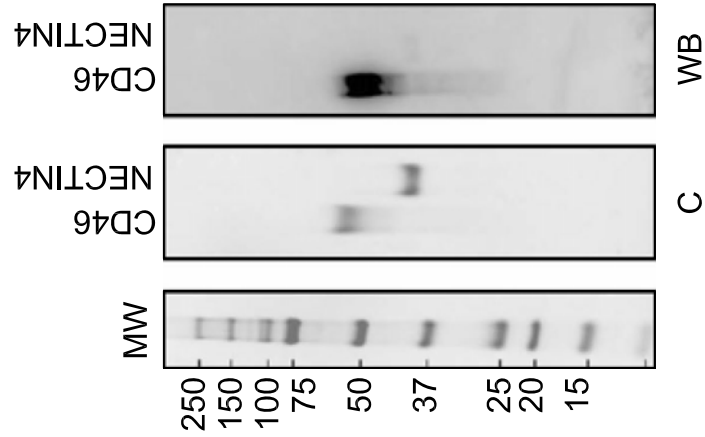


FIG. 19A

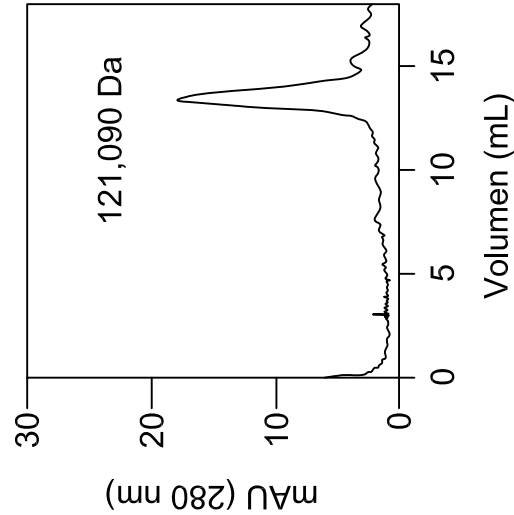


FIG. 19B

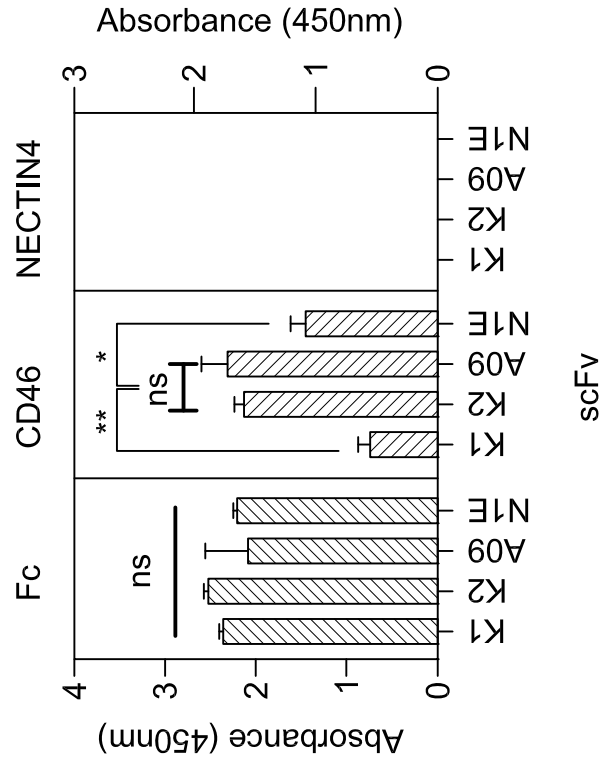


FIG. 19C

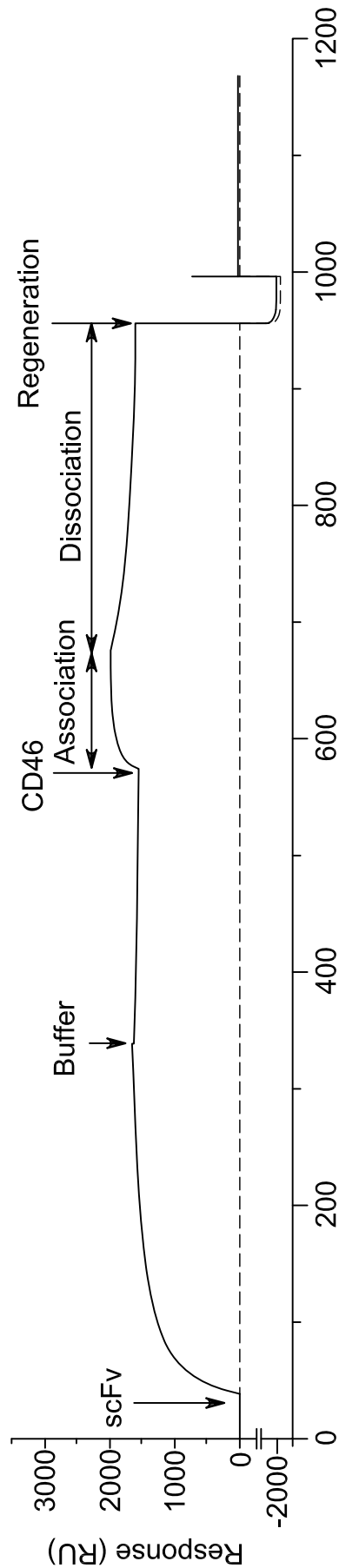


FIG. 20A

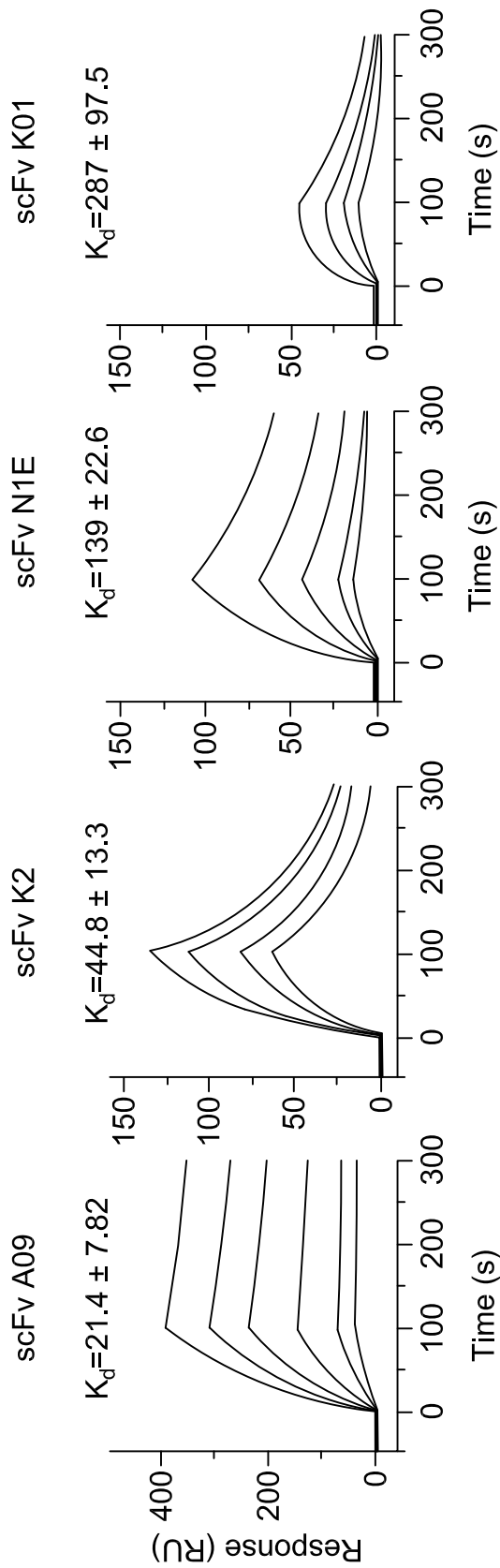


FIG. 20B

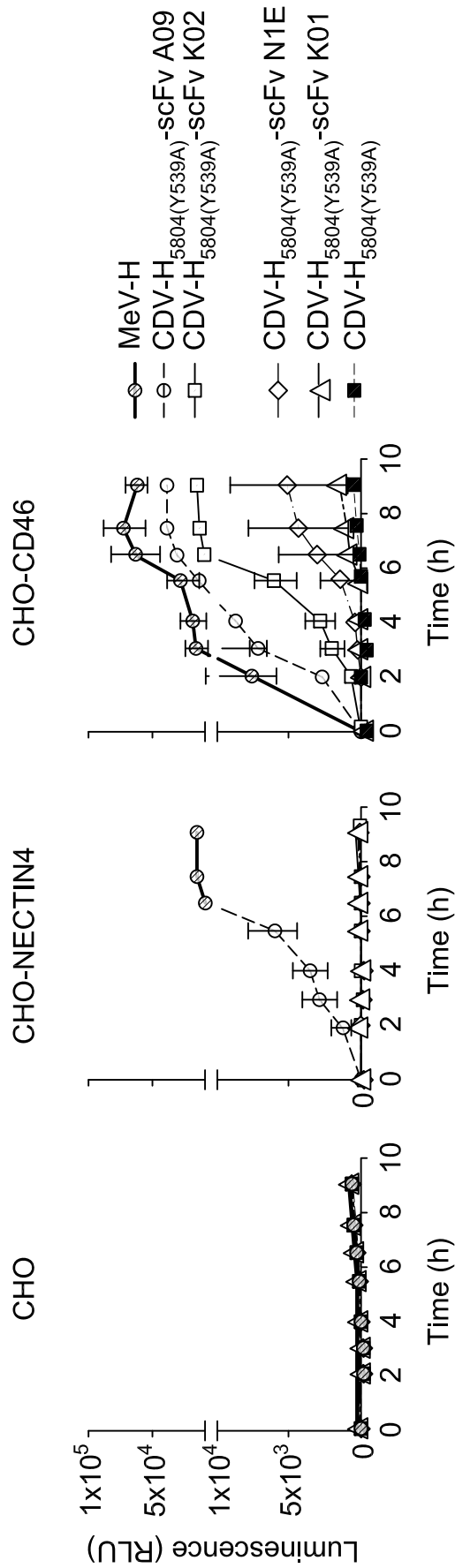


FIG. 20C

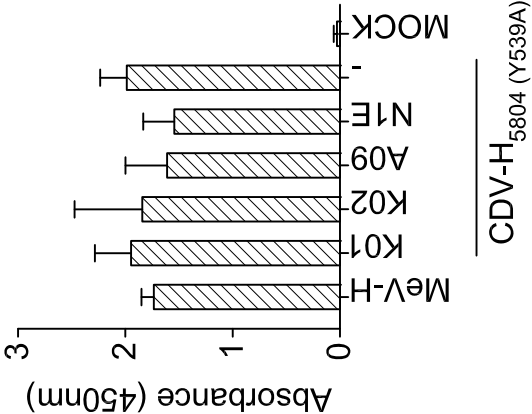


FIG. 21A

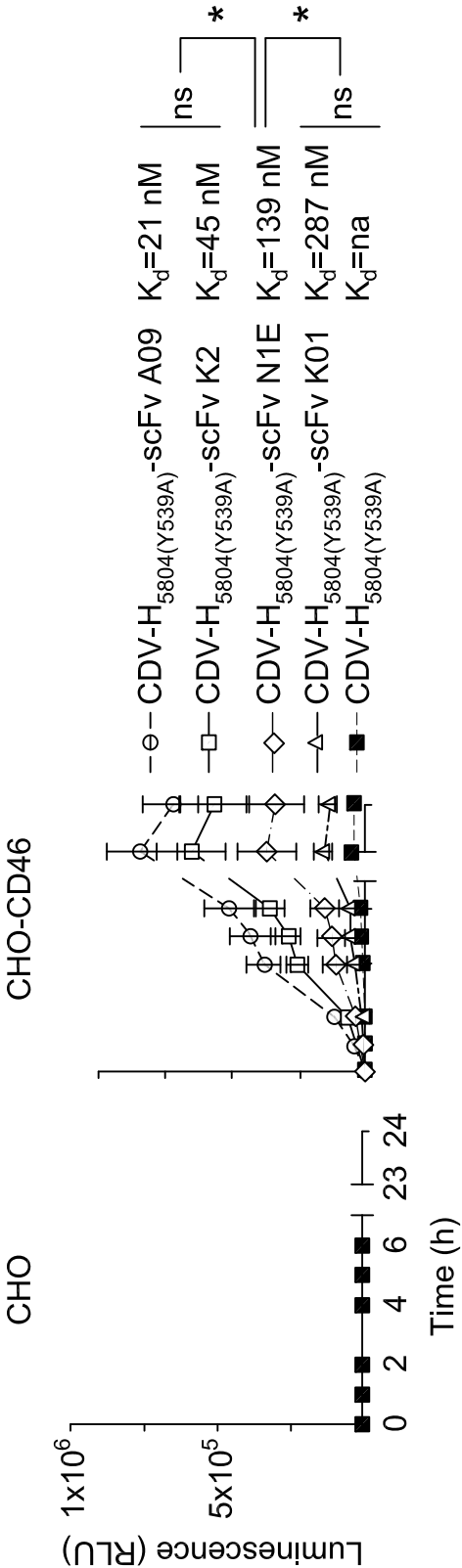


FIG. 21B

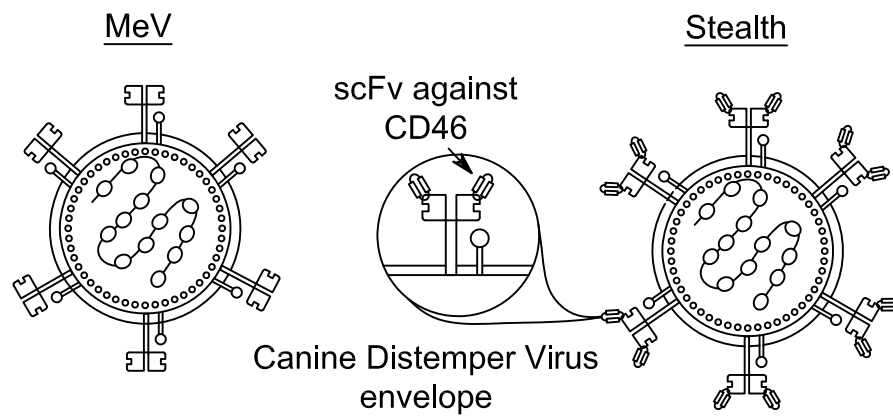


FIG. 22A

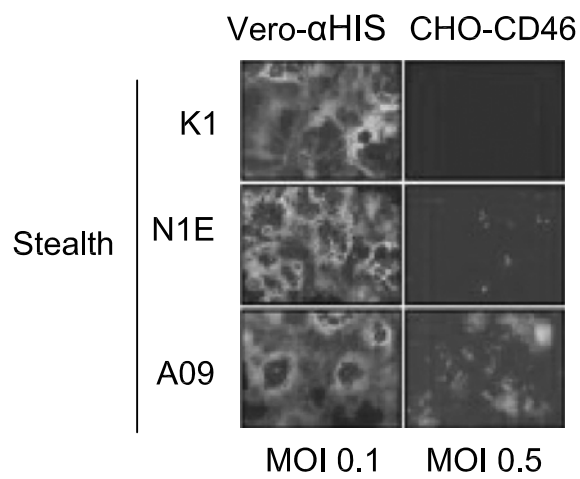


FIG. 22B

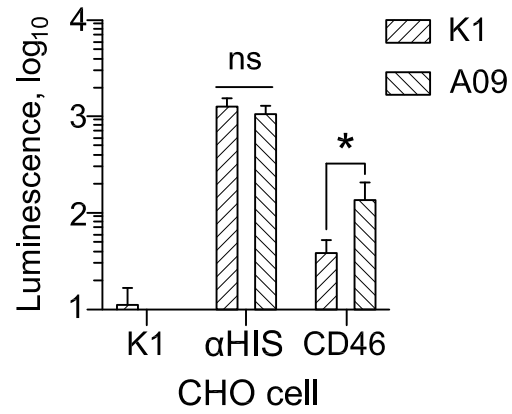


FIG. 22C

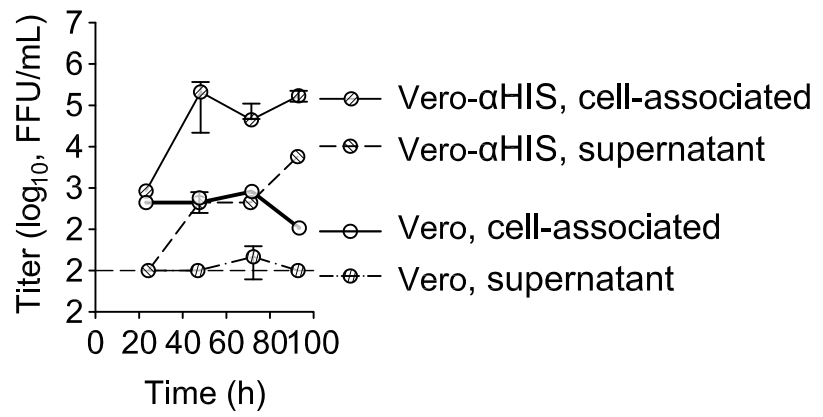


FIG. 22D

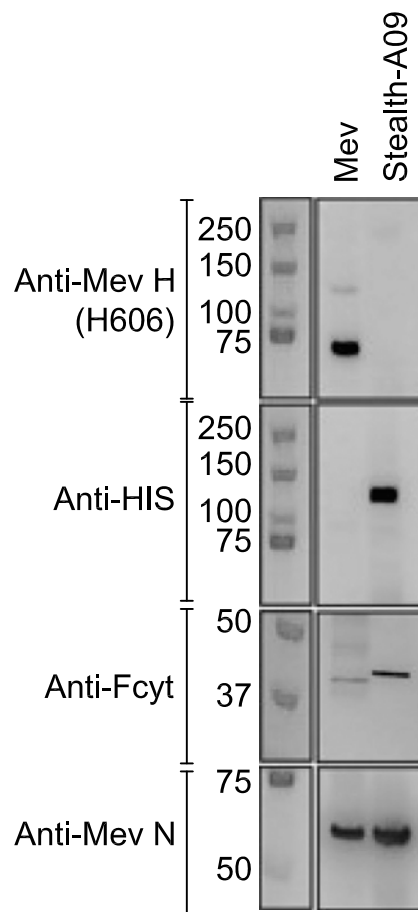


FIG. 22E

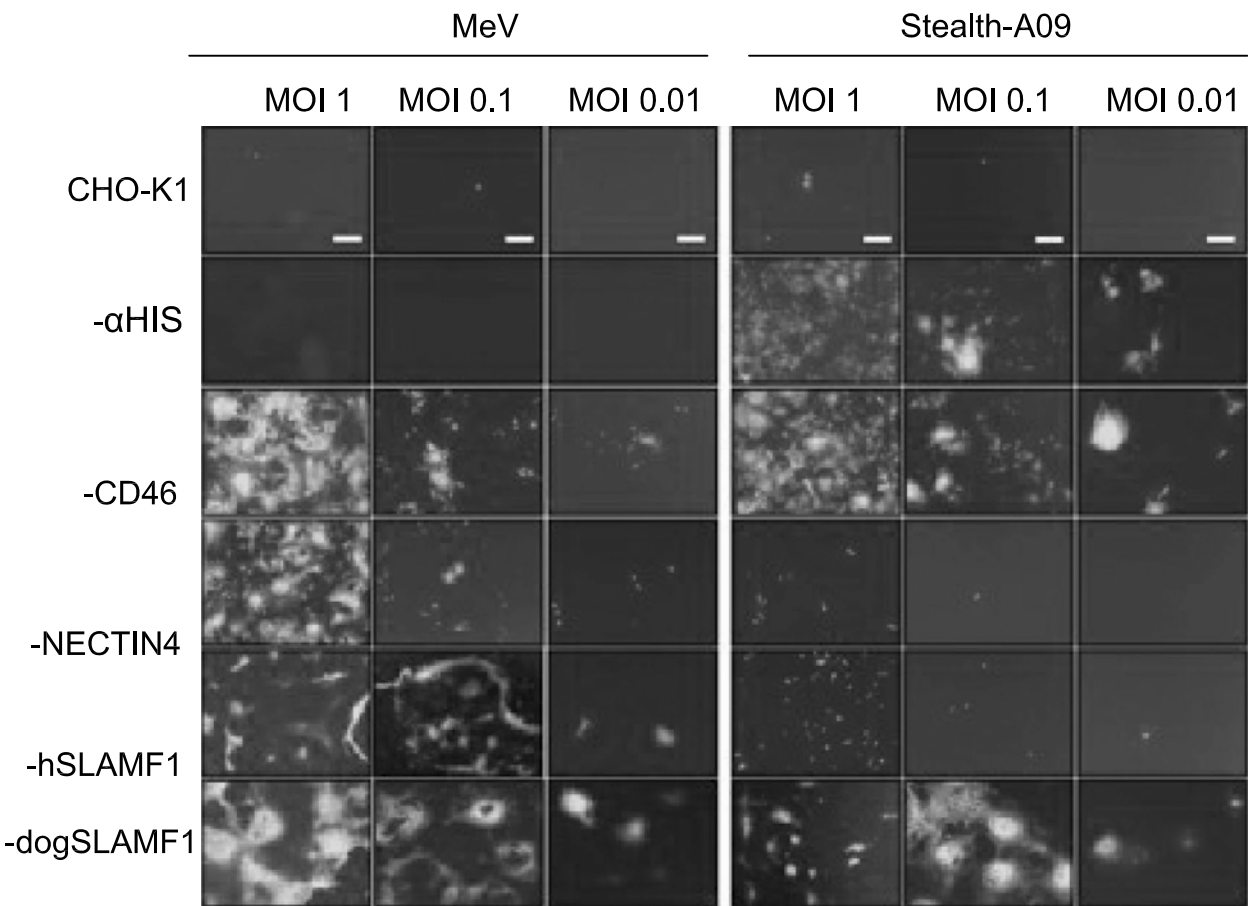


FIG. 22F

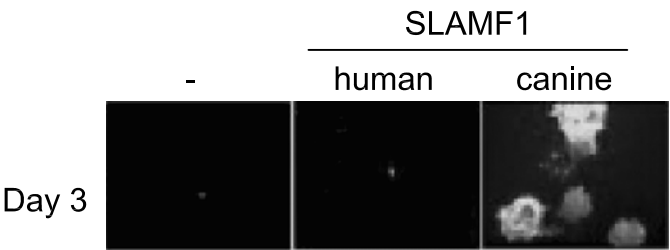


FIG. 22G

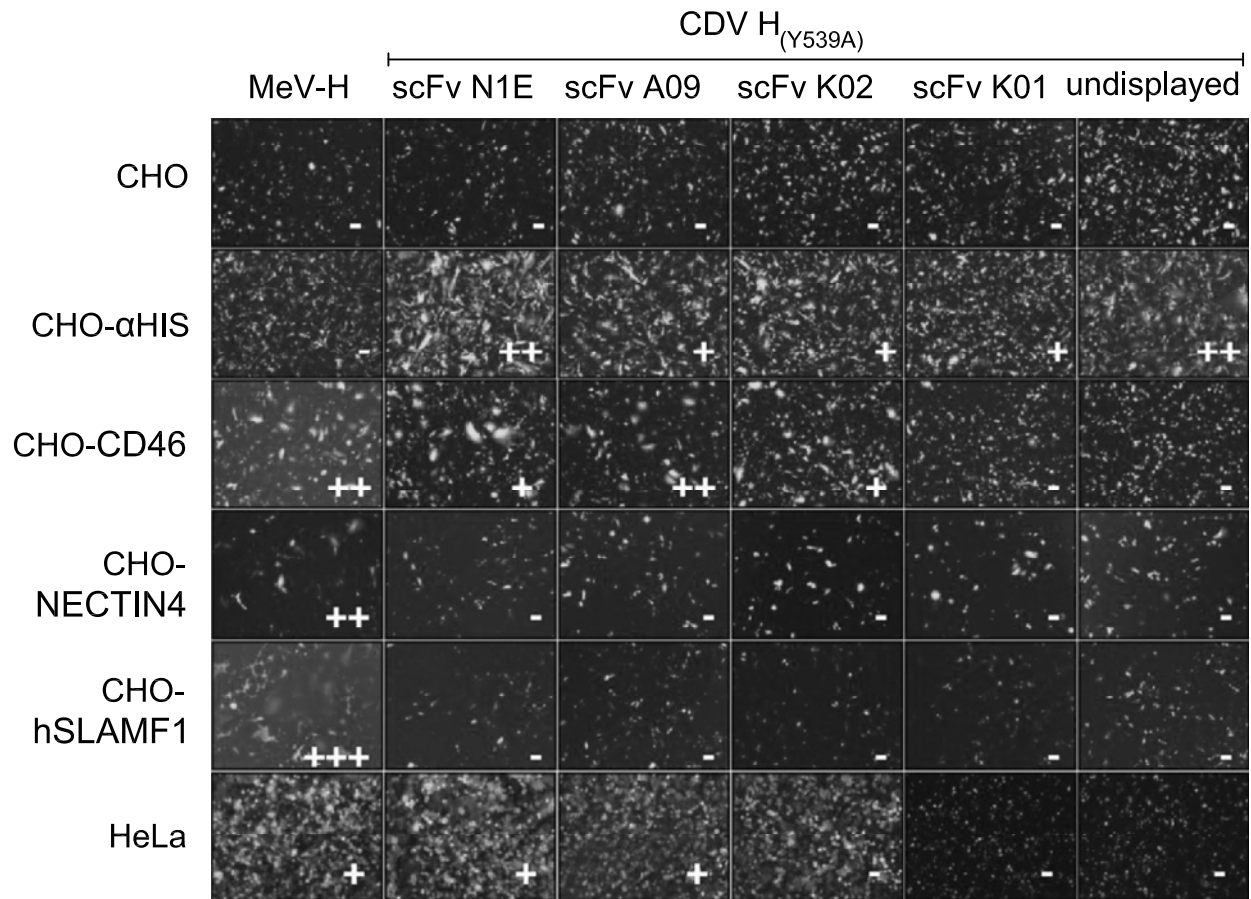


FIG. 23

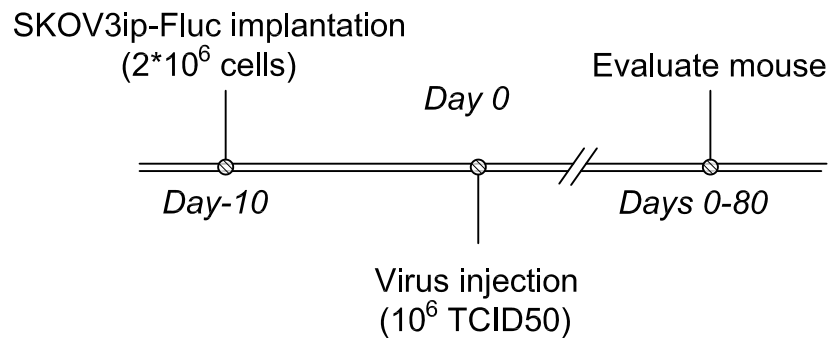


FIG. 24A

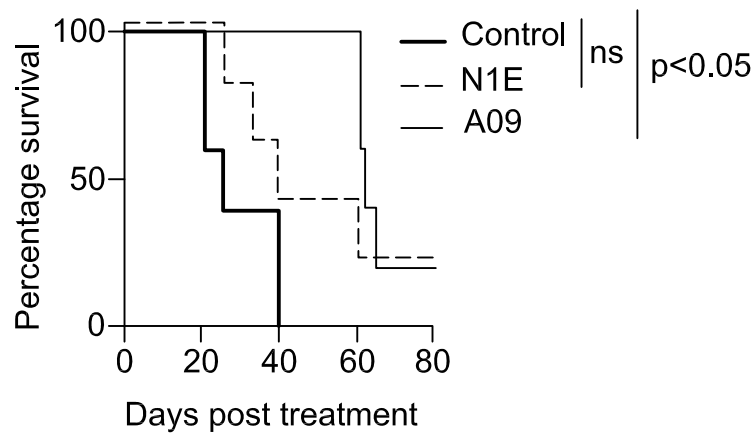


FIG. 24B

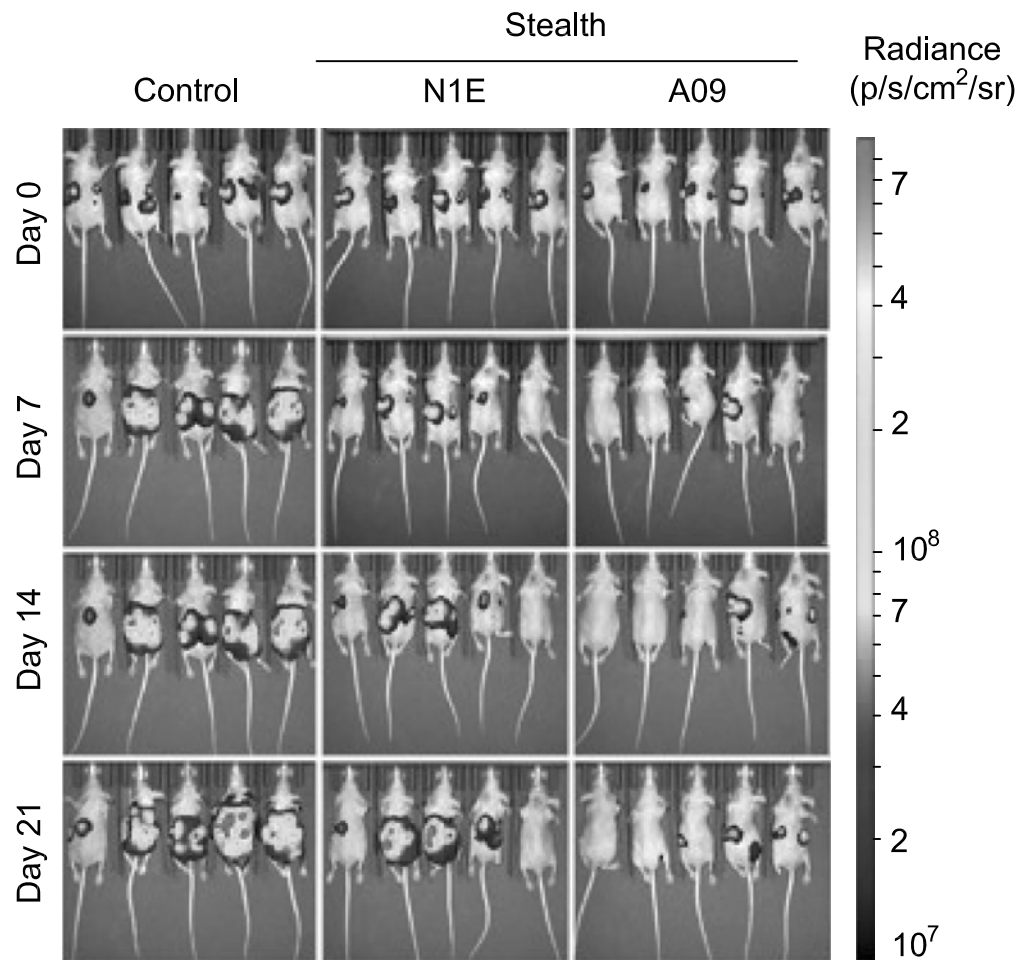


FIG. 24C

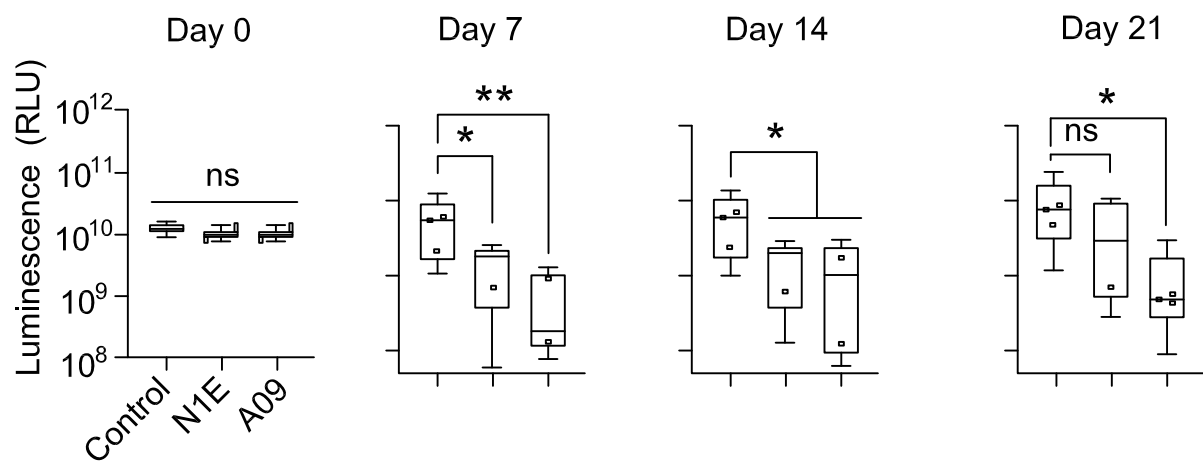


FIG. 24D

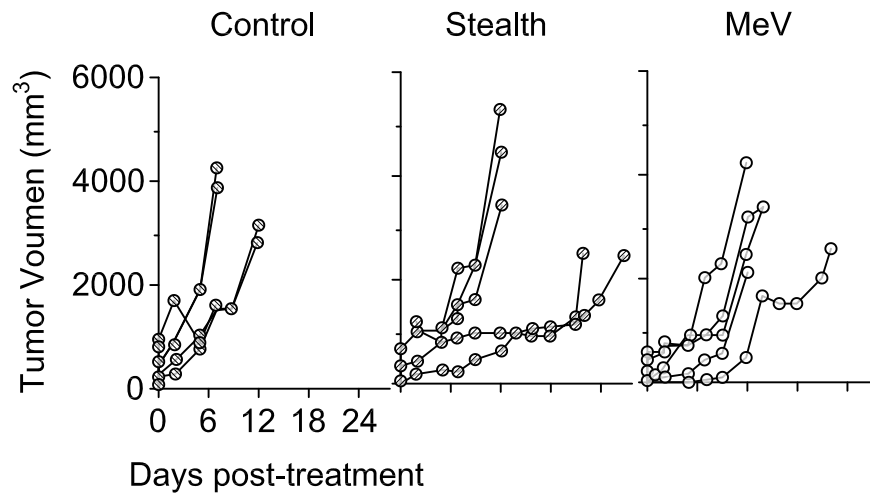


FIG. 25A

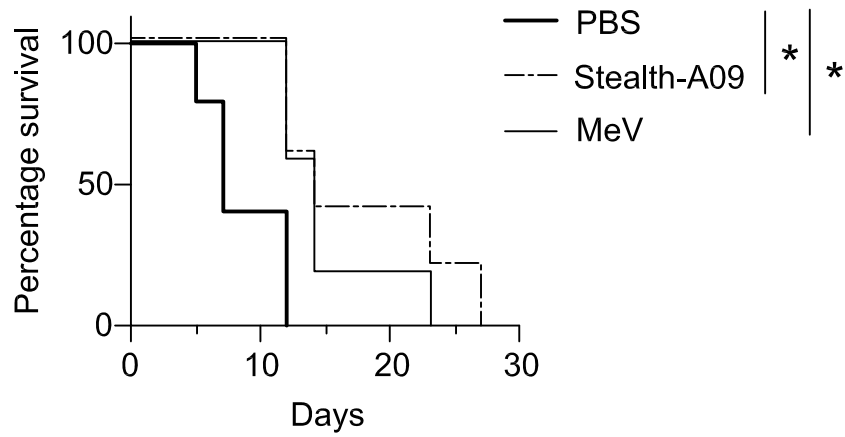


FIG. 25B

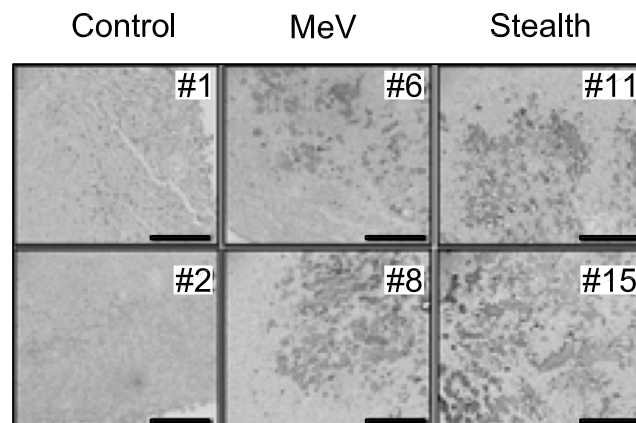


FIG. 25C

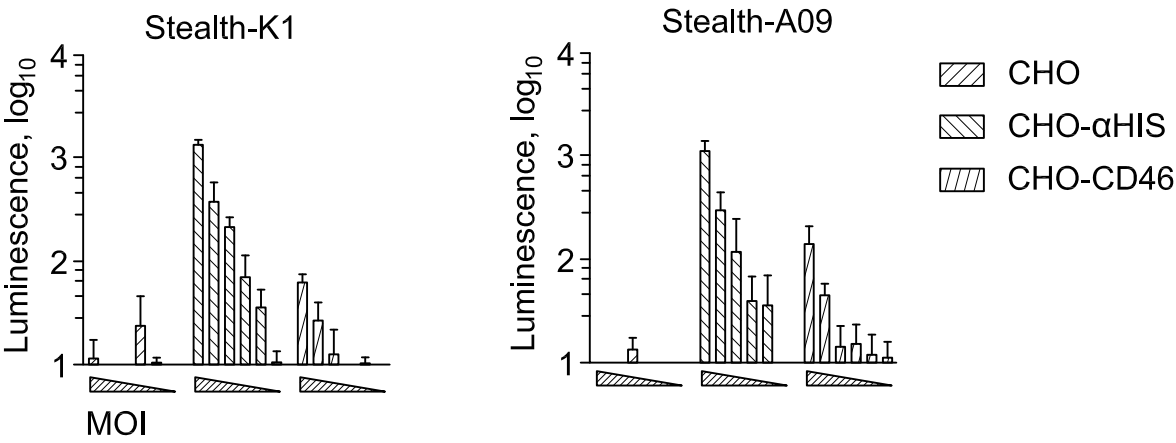


FIG. 26

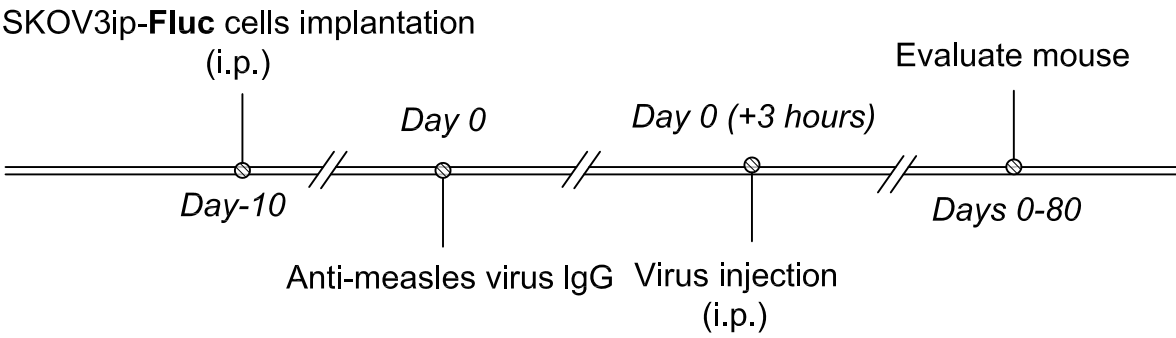


FIG. 27A

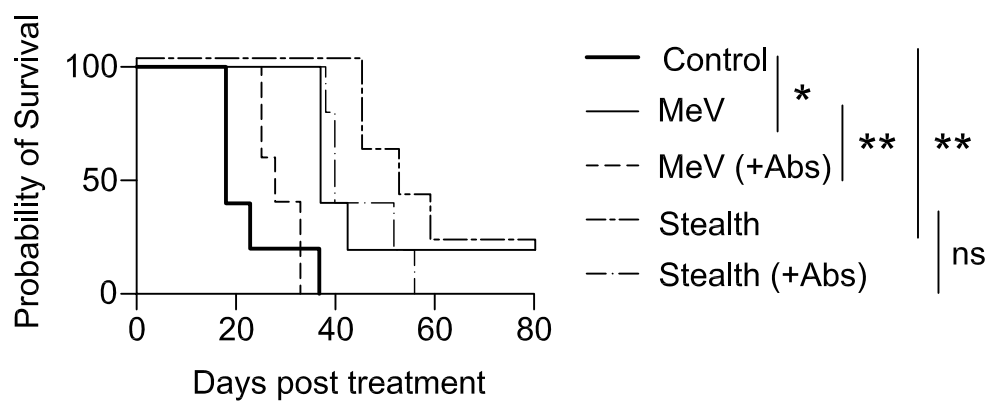


FIG. 27B

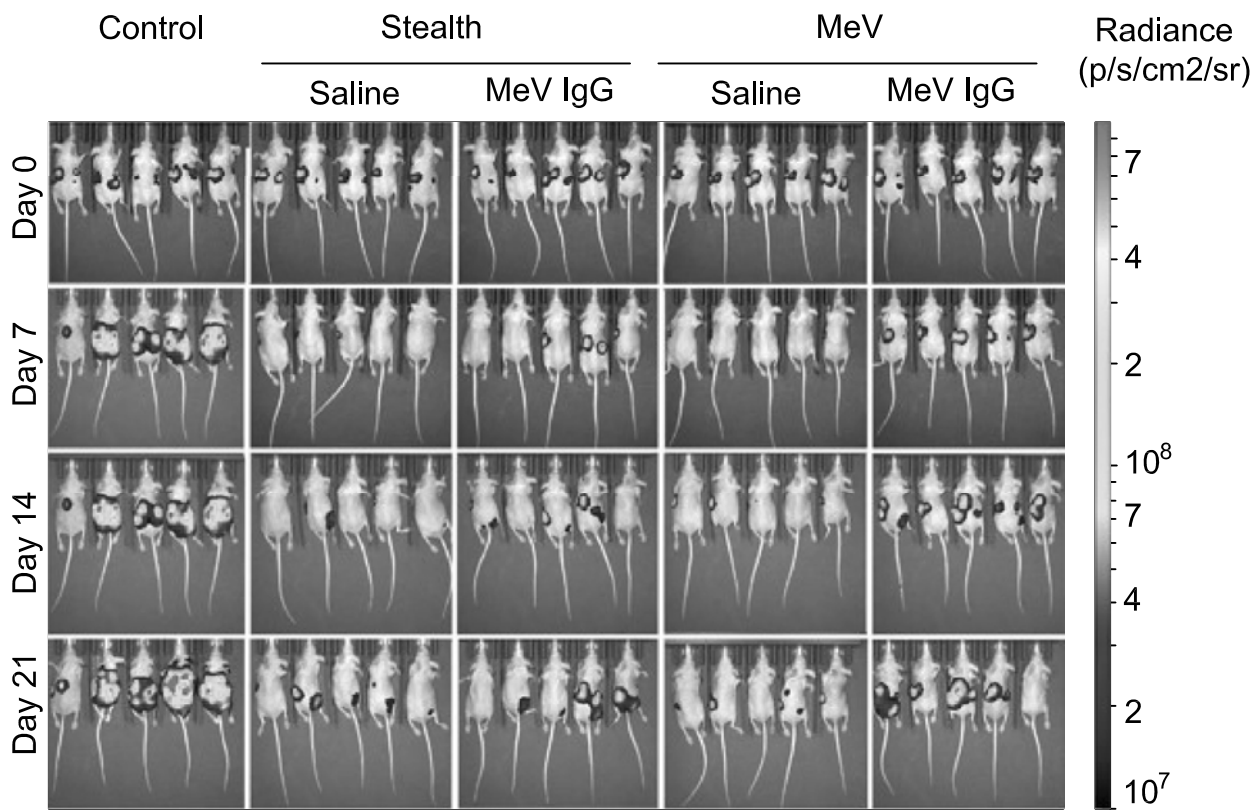


FIG. 27C

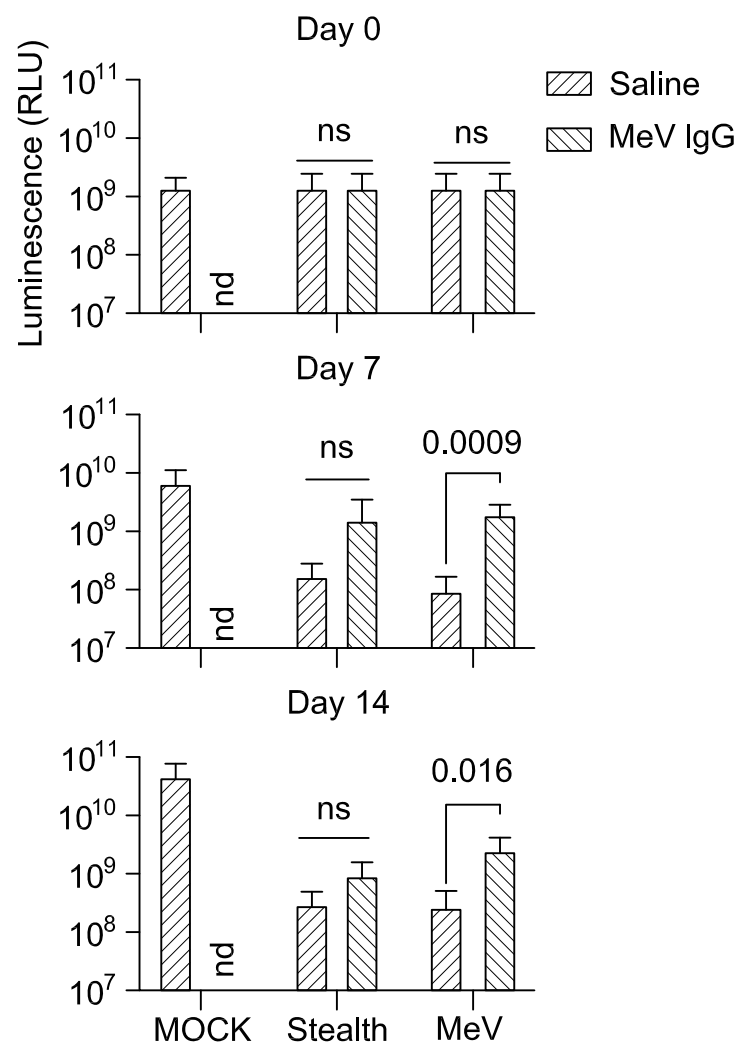


FIG. 27D

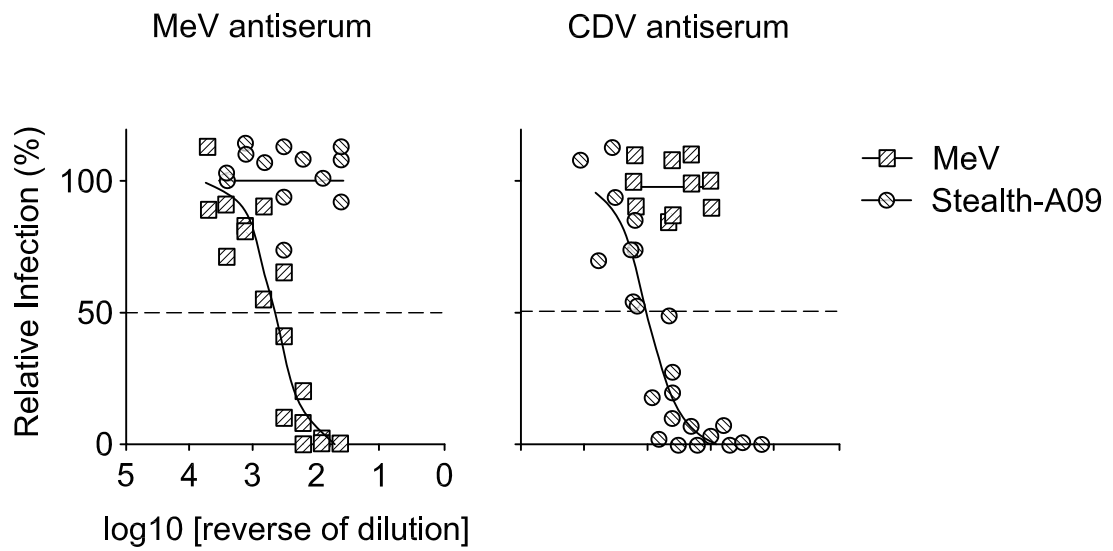


FIG. 28A

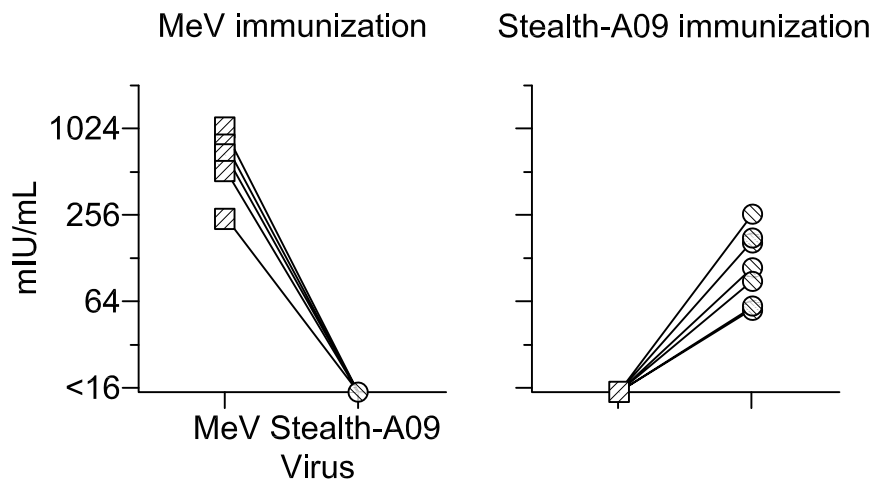


FIG. 28B