

SEQUENCE LISTING

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<170> BiSSAP 1.3.6

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<211> 298

<212> PRT

<213> Viruses

<400> 1

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Ser Ile His Asn Asn Tyr Gly Leu Leu Arg Ser Leu Leu Gly Gly Gln
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Gly Arg Leu Asn Gly Lys Ile Gly Asp Leu Glu Lys Asp Val Asn Leu
          50          55          60
Ile His Leu Arg Val Val Ser Leu Glu His Ala Leu Asp Asp Leu Arg
65          70          75          80
Ala Asp Phe Asp Ala Phe Thr Pro Thr Val Gly Pro Glu Ile Asp Asp
          85          90          95
Lys Leu Ala Pro Leu Gln Lys Gln Leu Lys Val Leu Asn Asp Gln Leu
          100          105          110
Thr Ile Met Asn Ser Glu Val Ala Val Leu Gly Lys Gly Ile Phe Gly
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Asp Tyr Gln Leu Thr Asp Leu Leu Gly His Thr Val Gly Gly Val Ala
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Ala Val Thr Thr Asn Ser Leu Thr Ser Ala Phe Arg Leu Ser Asp Arg
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Leu Pro Ala Thr Thr Val Gly Asp Phe Ser Leu Ser Thr Gly Val Gly
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Tyr Thr Phe Val Gly Thr Ala Pro Arg Pro Ile Leu Gln Val Glu Asp
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Phe Met Arg Gly Thr Cys Arg Met Asn Leu Thr Asp Thr Ala Leu Met
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Tyr Gly Gly Ser His Ile Pro Leu Leu Gln Gln Ser Leu Leu Gln Leu
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Glu Thr Thr Val Pro Pro Gly Pro Thr Asp Trp Lys Lys Leu Pro Gln
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Thr	Val	Ile	Leu	Pro	Asp	Met	Val	Gly	Lys	Gln	Lys	Leu	Asn	Phe	Leu
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Pro	Val	Ala	Gly	Pro	Ile	Pro	Trp	Lys	Asn	Ile	Lys	Phe	Asp	Glu	Leu	565	570	575
Arg	Val	Leu	Ser	Asp	Lys	Ala	Ala	Ser	Ser	Phe	Lys	Arg	Asp	Pro	Ser	580	585	590
Gln	Ala	Leu	Ile	Ser	His	Asp	Pro	Val	Leu	Gly	Asp	Ser	Ala	Val	Met	595	600	605
Thr	Ser	Leu	Leu	Gly	Gly	Ile	Gly	Asn	Ala	Val	Lys	Thr	Lys	Gly	Leu	610	615	620
Ser	Ala	Ala	Cys	Lys	Asp	Thr	Lys	Ser	Ala	Leu	Thr	Ala	Ala	Gln	Ser	625	630	635
Gly	Arg	Ser	Val	Arg	Gln	Thr	Ile	Leu	Asp	Lys	Ile	Glu	Lys	Leu	Phe	645	650	655
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<213> Viruses

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Val Thr Ser Asp Arg Tyr Leu Ala Met Cys Arg His Leu Leu Val Phe
50 55 60
Lys Pro Thr Leu Asn Asn Gly Thr Leu Thr His Tyr Thr Ala Phe Ser
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Ala Ile Arg Ser Met Ile Ser Pro Leu Gly Phe Gly Val Met Arg Asn
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Val Asp Val Val Glu Lys Gln Cys Ala Ile Ile Glu Ala Leu Glu Arg
100 105 110
Arg Gly Met Leu Asn Glu Val Lys Asp Ala Ala Ala Glu Leu Pro Leu
115 120 125
Gln Leu Asp Val Thr Asp Thr Ser Thr His Val Asp Pro Ala Ile Ile
130 135 140
Asp Ser Leu Pro Pro Leu Ile Gln Asn Glu Val Ala Ala Gly Leu Thr
145 150 155 160
Pro Leu Glu Leu Pro Ala Ile Thr Met Val Gln Thr Ala Pro Leu Ile
165 170 175
Thr Pro Ala Leu Gly Met Glu Asn Asp Asp Phe Asn Leu Ser Arg Tyr
180 185 190
Phe Phe Ala Ser Gly Phe Ile Asp Gln Ala Ser Arg Ile Gly Gly Thr
195 200 205
Val Asn Asp Glu Tyr Val Lys Gly Phe Met Gln Ala Leu Pro Arg Phe
210 215 220
Asn Asp Asp Gly Ser Ile Arg Val Asp Cys Asp Val Leu Thr Cys Leu
225 230 235 240
Cys Ser Arg Asp Glu Asp Leu Ser Val Leu Thr Pro Leu Ser Val Asn
245 250 255
Thr Thr Ala Val Ser Asp Met Phe Glu Leu Ser His Asp His Gln Pro
260 265 270
Met Ala Tyr Leu Arg Thr Val Tyr Val Glu Asp Tyr Ile Ala Ser His
275 280 285
Leu Glu Ser Leu Lys Asn Arg Glu Thr Ala Thr Pro Leu Val Leu Lys
290 295 300
Leu Ser Ala Val Asn Ser Val Thr Pro Lys Ala Leu Ile Ala Leu Val
305 310 315 320

Glu	Ser	Lys	Ala	Thr	Asp	Ser	Ile	Phe	Asn	Gln	Ala	Asp	Lys	Arg	Trp	325	330	335
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Ser	Thr	Ile	His	Ser	Met	Asp	Val	Ala	Asn	Met	Lys	Asp	Gln	Val	Ile	450	455	460
Gln	Lys	Asp	Val	Gln	Leu	Lys	Ala	Leu	Ile	Glu	Ala	Met	Ser	Gln	Lys	465	470	475
Asp	Ser	Leu	Ile	Asp	Ser	Leu	Arg	Ala	Asp	Val	Ala	Gly	Leu	Thr	Glu	485	490	495
Arg	Ala	Val	Leu	Val	Gln	Ala	Glu	His	Leu	Thr	Thr	Ile	Ala	Asp	Met	500	505	510
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Trp	Pro	Ala	Leu	Cys	Gln	Arg	Tyr	Ile	Gln	Asn	Met	Gln	Leu	Val	Asp	580	585	590
Glu	Ile	Trp	Thr	Asn	Lys	Leu	Ala	Asp	Ala	Thr	Asp	Thr	Ile	Ala	Thr	595	600	605
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Ala	Met	Val	Met	Pro	Val	Val	Glu	Ala	Pro	Lys	Pro	Gln	Arg	Lys	Pro	625	630	635
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<213> Viruses

<400> 7

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Ser	Ile	His	Asn	Asn	Tyr	Gly	Leu	Leu	Arg	Ser	Leu	Leu	Gly	Gly	Gln	35	40	45	
Gly	Arg	Leu	Asn	Gly	Lys	Ile	Gly	Asp	Leu	Glu	Lys	Asp	Val	Asn	Leu	50	55	60	
Ile	His	Leu	Arg	Val	Val	Ser	Leu	Glu	His	Ala	Leu	Asp	Asp	Leu	Arg	65	70	75	80
Ala	Asp	Phe	Asp	Ala	Phe	Thr	Pro	Thr	Val	Gly	Pro	Glu	Ile	Asp	Asp	85	90	95	
Lys	Leu	Ala	Pro	Leu	Gln	Lys	Gln	Leu	Lys	Val	Leu	Asn	Asp	Gln	Leu	100	105	110	
Thr	Ile	Met	Asn	Ser	Glu	Val	Ala	Val	Leu	Gly	Lys	Gly	Ile	Phe	Gly	115	120	125	
Asp	Tyr	Gln	Leu	Thr	Asp	Leu	Leu	Gly	His	Thr	Val	Gly	Gly	Val	Ala	130	135	140	
Ala	Val	Thr	Thr	Asn	Ser	Leu	Thr	Ser	Ala	Phe	Arg	Leu	Ser	Asp	Arg	145	150	155	160
Leu	Pro	Ala	Thr	Thr	Val	Gly	Asp	Phe	Ser	Leu	Ser	Thr	Gly	Val	Gly	165	170	175	
Tyr	Thr	Phe	Val	Gly	Thr	Ala	Pro	Arg	Pro	Ile	Leu	Gln	Val	Glu	Asp	180	185	190	
Phe	Met	Arg	Gly	Thr	Cys	Arg	Met	Asn	Leu	Thr	Asp	Thr	Ala	Leu	Met	195	200	205	
Tyr	Gly	Gly	Ser	His	Ile	Pro	Leu	Leu	Gln	Gln	Ser	Leu	Leu	Gln	Leu	210	215	220	
Glu	Thr	Thr	Val	Pro	Pro	Gly	Pro	Thr	Asp	Trp	Lys	Lys	Leu	Pro	Gln	225	230	235	240
Met	Val	Lys	Gly	Val	Leu	Trp	Met	Ser	Leu	Val	Asn	Tyr	Glu	Gly	Ala	245	250	255	
Asn	Val	Val	Pro	Val	Val	Val	Met	Arg	Lys	Val	Asn	Ala	Thr	Val	Thr	260	265	270	
Thr	Val	Ile	Leu	Pro	Asp	Met	Val	Gly	Lys	Gln	Lys	Leu	Asn	Phe	Leu	275	280	285	

Val Ser Leu Asp Asp Lys Ile Asn Val His

290

295

<210> 8

<211> 298

<212> PRT

<213> Viruses

<400> 8

Met His Arg Phe Thr Gln Glu Asp His Val Ile Ile Asn Ser Arg Leu

1 5 10 15

Asp Ala Ile Glu Glu Asp Asn Lys Arg Asn Phe Ala Ser Leu Lys Gln

20 25 30

Ser Ile His Asn Asn Tyr Gly Leu Leu Arg Ser Leu Leu Gly Gly Gln

35 40 45

Gly Arg Leu Asn Gly Lys Ile Gly Asp Leu Glu Lys Asp Val Asn Leu

50 55 60

Ile His Leu Arg Val Val Ser Leu Glu His Ala Leu Asp Asp Leu Arg

65 70 75 80

Ala Asp Phe Asp Ala Phe Thr Pro Thr Val Gly Pro Glu Ile Asp Asp

85 90 95

Lys Leu Ala Pro Leu Gln Lys Gln Leu Lys Ala Leu Asn Asp Gln Leu

100 105 110

Thr Ile Met Asn Ser Glu Val Ala Val Leu Gly Lys Gly Ile Phe Gly

115 120 125

Asp Tyr Gln Leu Thr Asp Leu Leu Gly His Thr Val Gly Gly Val Ala

130 135 140

Ala Val Thr Thr Asn Ser Leu Thr Ser Ala Phe Arg Leu Ser Asp Arg

145 150 155 160

Leu Pro Ala Thr Thr Val Gly Asp Phe Ser Leu Ser Thr Gly Val Gly

165 170 175

Tyr Thr Phe Val Gly Thr Ala Pro Arg Pro Ile Leu Gln Val Glu Asp

180 185 190

Phe Met Arg Gly Thr Cys Arg Met Asn Leu Thr Asp Thr Ala Leu Met

195 200 205

Tyr Gly Gly Ser His Ile Pro Leu Leu Gln Gln Ser Leu Leu Gln Leu

210 215 220

Glu Thr Thr Val Pro Pro Gly Pro Thr Asp Trp Lys Lys Leu Pro Gln

225 230 235 240

Met Val Lys Gly Val Leu Trp Met Ser Leu Val Asp Tyr Glu Gly Ala

245 250 255

Asn Val Val Pro Val Val Val Met Arg Lys Val Asn Ala Thr Val Thr

260 265 270

Thr Val Ile Leu Pro Asp Met Val Gly Lys Gln Lys Leu Asn Phe Leu

275 280 285

Val Ser Leu Asp Asp Lys Ile Asn Val His

290

295

<210> 9

<211> 687
 <212> PRT
 <213> Viruses

<400> 9

Met	Gly	Asn	Tyr	Gln	Thr	Ser	Asn	Asn	Gln	Phe	Trp	Val	Thr	Gly	Asp	
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Gly	Asn	Asp	Phe	Ser	Ala	Glu	Gly	Gly	Leu	Asp	Ser	Thr	Asn	Ala	Ala	
			20					25					30			
Ser	Leu	Asp	Phe	Lys	Ala	Gly	Lys	Thr	Asn	Pro	Gly	Gly	His	Met	Tyr	
		35					40					45				
Val	Ile	Ser	Gly	Asp	Asn	Thr	Ser	Asp	Val	Val	Lys	Trp	Asp	Ser	Leu	
	50					55					60					
Thr	Pro	Leu	Tyr	Gly	Ile	Asp	Gly	Gln	Met	Val	Val	Val	Leu	Thr	Ala	
65					70				75						80	
Val	Ala	Met	Ser	Thr	Phe	Glu	Lys	Met	Val	Asn	Leu	Ile	Glu	Met	Tyr	
				85					90				95			
Arg	Pro	Leu	Leu	Glu	Ala	Ser	Gln	Gln	Met	Ala	Cys	Tyr	Arg	Asp	Trp	
		100						105					110			
Lys	Lys	Asp	Ile	Val	Leu	Leu	Asp	Gly	Tyr	Val	Gly	Ser	Thr	Pro	Gln	
		115					120					125				
Ser	Ala	Val	Thr	Asn	Phe	Val	Thr	Gly	Ala	Ser	Val	Ile	Asn	Leu	Arg	
	130					135					140					
Glu	Leu	Arg	Ser	Leu	Gly	Lys	Met	Tyr	Gln	Asn	Ile	Leu	Gly	Val	Ile	
145					150				155					160		
Ala	Asn	Tyr	Asp	Arg	Asp	Ile	Gln	Val	Ala	Leu	Ser	Leu	Ile	Pro	His	
			165					170					175			
Ser	Thr	Pro	Ile	Gly	Ser	Leu	Thr	Ala	Asp	Met	His	Ser	Ile	Leu	Arg	
		180					185						190			
Met	Ile	Ser	Leu	Ser	Leu	Lys	Pro	Thr	Asn	Val	Cys	Tyr	Leu	Tyr	Pro	
	195					200						205				
Glu	Ala	Ala	Leu	Gln	Val	Ile	Arg	Ala	Ile	Ser	Pro	Thr	Val	Arg	Asn	
	210					215					220					
Val	Asp	Thr	Gln	Gln	Gly	Gly	Ser	Ile	Val	Glu	Thr	Leu	Asn	Leu	Phe	
225				230					235					240		
Glu	Pro	Val	Phe	Asn	Gly	Thr	Gly	Pro	Asn	Gln	Pro	Pro	Leu	Thr	Asp	
			245					250					255			
Gln	Ser	Glu	Val	Arg	Ser	Ile	Ala	Arg	Ser	Asp	Ala	Ser	Leu	Ala	Gln	
		260					265						270			
Leu	Ser	Leu	Ile	Ser	Ser	Thr	Glu	Pro	Ile	Glu	Ala	Arg	Ala	Leu	Lys	
	275					280						285				
Ser	Gly	Thr	Pro	Thr	Lys	Thr	Tyr	Asp	Ile	Arg	Leu	Val	Asp	Pro	Leu	
	290				295						300					
Thr	Thr	Pro	Trp	Val	Ser	Lys	Ala	Tyr	Ala	Leu	Ala	Glu	Lys	Thr	Ala	
305				310					315					320		
Arg	Ile	Gln	Phe	Thr	Asp	Ser	Gly	Arg	Lys	Thr	Trp	Tyr	Thr	Ala	Val	
			325					330					335			
Gly	Lys	Gly	Thr	Leu	Ala	Leu	His	Leu	Asp	Asp	Ile	Thr	Ser	Met	Ser	
		340					345					350				

Ile	Thr	Met	Asp	Leu	Gly	Gly	Glu	Ser	Tyr	Tyr	Tyr	Lys	Thr	Leu	Ala	355	360	365
Asn	Asp	Ala	Ala	Glu	Thr	Val	Asp	Pro	Glu	Ser	Ala	Thr	Val	Ala	Phe	370	375	380
Ile	Leu	Phe	Ser	Val	Thr	Arg	Pro	Leu	Glu	Glu	Ile	Thr	Thr	Ala	Ser	385	390	395
Glu	Leu	Gln	Thr	Gly	Lys	Ile	Val	Ala	Phe	Glu	Lys	Leu	Met	Val	Ala	405	410	415
Asn	Ser	Ser	Val	Gln	Gly	Ala	Lys	Ile	Ile	Ala	Asn	Thr	Ser	Leu	Lys	420	425	430
Tyr	Asn	Phe	Asp	His	Asn	Ser	Ile	Ser	Gly	Asp	Lys	Ser	Glu	Leu	Asn	435	440	445
His	Tyr	Leu	Leu	Cys	Gln	Leu	Leu	Phe	Asn	Asn	Leu	Ser	Ala	Ser	Thr	450	455	460
Thr	Tyr	Thr	Gln	Gln	Asp	Ala	Trp	Ala	Gly	Lys	Thr	Thr	Met	Gln	Ser	465	470	475
Leu	Asp	Ser	Asp	Lys	Val	Thr	Val	Lys	Gly	Val	Glu	Val	Asp	Arg	Val	485	490	495
Ile	Pro	Ala	Gly	Ala	Phe	Gly	Asn	Tyr	Thr	Thr	Ala	Glu	Gln	Lys	Ser	500	505	510
Ser	Leu	Pro	Asn	Asp	Leu	His	Ser	Val	Met	Ala	Thr	His	Leu	Glu	Arg	515	520	525
Ala	Ala	Lys	Ala	Met	Thr	Ala	Ile	Asp	Asp	Glu	Asp	Gln	Glu	Gly	Gly	530	535	540
Ser	Thr	Val	Ala	Asn	Ala	Ile	Phe	Gly	Ala	Leu	Ile	Ser	Lys	Glu	Ser	545	550	555
Pro	Val	Ala	Gly	Pro	Ile	Pro	Trp	Lys	Asn	Ile	Lys	Phe	Asp	Glu	Leu	565	570	575
Arg	Val	Leu	Ser	Asp	Lys	Ala	Ala	Ser	Ser	Phe	Lys	Arg	Asp	Pro	Ser	580	585	590
Gln	Ala	Leu	Ile	Ser	His	Asp	Pro	Val	Leu	Gly	Asp	Ser	Ala	Val	Met	595	600	605
Thr	Ser	Leu	Leu	Gly	Gly	Ile	Gly	Asn	Ala	Val	Lys	Thr	Lys	Gly	Leu	610	615	620
Ser	Ala	Ala	Cys	Lys	Asp	Thr	Lys	Ser	Ala	Leu	Thr	Ala	Ala	Gln	Ser	625	630	635
Gly	Arg	Ser	Val	Arg	Gln	Thr	Ile	Leu	Asp	Lys	Ile	Glu	Lys	Leu	Phe	645	650	655
Pro	Pro	Gly	Pro	Arg	Pro	Ala	Lys	Lys	Met	Ile	Glu	Glu	Gly	Pro	Ser	660	665	670
Lys	Lys	Glu	Ala	Arg	Arg	Leu	Gly	Asp	Ser	Arg	Arg	Gly	Gln	Lys		675	680	685

<210> 10

<211> 687

<212> PRT

<213> Viruses

<400> 10

Met	Gly	Asn	Tyr	Gln	Thr	Ser	Asn	Asn	Gln	Phe	Trp	Val	Thr	Gly	Asp	1	5	10	15
Gly	Asn	Asp	Phe	Ser	Ala	Glu	Gly	Gly	Leu	Asp	Ser	Thr	Asn	Ala	Ala	20	25	30	
Ser	Leu	Asp	Phe	Lys	Ala	Gly	Lys	Thr	Asn	Pro	Gly	Gly	His	Met	Tyr	35	40	45	
Val	Ile	Ser	Gly	Asp	Asn	Thr	Ser	Asp	Val	Val	Lys	Trp	Asp	Ser	Leu	50	55	60	
Thr	Pro	Leu	Tyr	Gly	Ile	Asp	Gly	Gln	Met	Val	Val	Val	Leu	Thr	Ala	65	70	75	80
Val	Ala	Met	Ser	Thr	Phe	Glu	Lys	Met	Val	Asn	Leu	Ile	Glu	Met	Tyr	85	90	95	
Arg	Pro	Leu	Leu	Glu	Ala	Ser	Gln	Gln	Met	Ala	Cys	Tyr	Arg	Asp	Trp	100	105	110	
Lys	Lys	Asp	Ile	Val	Leu	Leu	Asp	Gly	Tyr	Val	Gly	Ser	Thr	Pro	Gln	115	120	125	
Ser	Ala	Val	Thr	Asn	Phe	Val	Thr	Gly	Ala	Ser	Val	Ile	Asn	Leu	Arg	130	135	140	
Glu	Leu	Arg	Ser	Leu	Gly	Lys	Met	Tyr	Gln	Asn	Ile	Leu	Gly	Val	Ile	145	150	155	160
Ala	Asn	Tyr	Asp	Arg	Asp	Ile	Gln	Val	Ala	Leu	Ser	Leu	Ile	Pro	His	165	170	175	
Ser	Thr	Pro	Ile	Gly	Ser	Leu	Thr	Ala	Asp	Met	His	Ser	Ile	Leu	Arg	180	185	190	
Met	Phe	Ser	Leu	Ser	Leu	Lys	Pro	Thr	Asn	Val	Cys	Tyr	Leu	Tyr	Pro	195	200	205	
Glu	Ala	Ala	Leu	Gln	Val	Ile	Arg	Ala	Ile	Ser	Pro	Thr	Val	Arg	Asn	210	215	220	
Val	Asp	Thr	Gln	Gln	Gly	Gly	Ser	Ile	Val	Glu	Thr	Leu	Asn	Leu	Phe	225	230	235	240
Glu	Pro	Val	Phe	Asn	Gly	Thr	Gly	Pro	Asn	Gln	Pro	Pro	Leu	Thr	Asp	245	250	255	
Gln	Ser	Glu	Val	Arg	Ser	Ile	Ala	Arg	Ser	Asp	Ala	Ser	Leu	Ala	Gln	260	265	270	
Leu	Ser	Leu	Ile	Ser	Ser	Thr	Glu	Pro	Ile	Glu	Ala	Arg	Ala	Leu	Lys	275	280	285	
Ser	Gly	Thr	Pro	Thr	Lys	Thr	Tyr	Asp	Ile	Arg	Leu	Val	Asp	Pro	Leu	290	295	300	
Thr	Thr	Pro	Trp	Val	Ser	Lys	Ala	Tyr	Ala	Leu	Ala	Glu	Lys	Thr	Ala	305	310	315	320
Arg	Ile	Gln	Phe	Thr	Asp	Ser	Gly	Arg	Lys	Thr	Trp	Tyr	Thr	Ala	Val	325	330	335	
Gly	Lys	Gly	Thr	Leu	Ala	Leu	His	Leu	Asp	Asp	Ile	Thr	Ser	Met	Ser	340	345	350	
Ile	Thr	Met	Asp	Leu	Gly	Gly	Glu	Ser	Tyr	Tyr	Tyr	Lys	Thr	Leu	Ala	355	360	365	
Asn	Asp	Ala	Ala	Glu	Thr	Val	Asp	Pro	Glu	Ser	Ala	Thr	Val	Ala	Phe	370	375	380	
Ile	Leu	Phe	Ser	Val	Thr	Arg	Pro	Leu	Glu	Glu	Ile	Thr	Thr	Ala	Ser	385	390	395	400

Glu	Leu	Gln	Thr	Gly	Lys	Ile	Val	Ala	Phe	Glu	Lys	Leu	Met	Val	Ala	
				405					410					415		
Asn	Ser	Ser	Val	Gln	Gly	Ala	Lys	Ile	Ile	Ala	Asn	Thr	Ser	Leu	Lys	
			420					425					430			
Tyr	Asn	Phe	Asp	His	Asn	Ser	Ile	Ser	Gly	Asp	Lys	Ser	Glu	Leu	Asn	
		435					440					445				
His	Tyr	Leu	Leu	Cys	Gln	Leu	Leu	Phe	Asn	Asn	Leu	Ser	Ala	Ser	Thr	
	450					455					460					
Thr	Tyr	Thr	Gln	Gln	Asp	Ala	Trp	Ala	Gly	Lys	Thr	Thr	Met	Gln	Ser	
465					470				475					480		
Leu	Asp	Ser	Asp	Lys	Val	Thr	Val	Lys	Gly	Val	Glu	Val	Asp	Arg	Val	
			485					490					495			
Ile	Pro	Ala	Gly	Ala	Phe	Gly	Asn	Tyr	Thr	Thr	Ala	Glu	Gln	Lys	Ser	
		500					505					510				
Ser	Leu	Pro	Asn	Asp	Leu	His	Ser	Val	Met	Ala	Thr	His	Leu	Glu	Arg	
	515					520					525					
Ala	Ala	Lys	Ala	Met	Thr	Ala	Ile	Asp	Asp	Glu	Asp	Gln	Glu	Gly	Gly	
	530					535				540						
Ser	Thr	Val	Ala	Asn	Ala	Ile	Phe	Gly	Ala	Leu	Ile	Ser	Lys	Glu	Ser	
545				550					555					560		
Pro	Val	Ala	Gly	Pro	Ile	Pro	Trp	Lys	Asn	Ile	Lys	Phe	Asp	Glu	Leu	
			565					570				575				
Arg	Val	Leu	Ser	Asp	Lys	Ala	Ala	Ser	Ser	Phe	Lys	Arg	Asp	Pro	Ser	
	580							585				590				
Gln	Ala	Leu	Ile	Ser	His	Asp	Pro	Val	Leu	Gly	Asp	Ser	Ala	Val	Met	
	595					600						605				
Thr	Ser	Leu	Leu	Gly	Gly	Ile	Gly	Asn	Ala	Val	Lys	Thr	Lys	Gly	Leu	
	610					615					620					
Ser	Ala	Ala	Cys	Lys	Asp	Thr	Lys	Ser	Ala	Leu	Thr	Ala	Ala	Gln	Ser	
625				630					635					640		
Gly	Arg	Ser	Val	Arg	Gln	Thr	Ile	Leu	Asp	Lys	Ile	Glu	Lys	Leu	Phe	
			645					650				655				
Pro	Pro	Gly	Pro	Arg	Pro	Ala	Lys	Lys	Met	Ile	Glu	Glu	Gly	Pro	Ser	
		660					665					670				
Lys	Lys	Glu	Ala	Arg	Arg	Leu	Gly	Asp	Ser	Arg	Arg	Gly	Gln	Lys		
	675					680						685				

<210> 11
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 <212> PRT
 <213> Viruses

<400> 11																
Met	Ala	Glu	Ser	Ile	Thr	Phe	Gly	Gly	Pro	Ser	Arg	Lys	Leu	Asp	Leu	
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Val	Ala	Ser	Gly	Ser	Lys	Pro	Ile	Thr	Val	Thr	Val	Thr	Val	Gly	Asp	
			20					25				30				
Leu	Gly	Cys	Ser	Ile	Tyr	Gly	Thr	Val	Pro	Arg	Gly	Thr	Asp	Glu	Phe	
	35						40					45				

Val	Thr	Ser	Asp	Arg	Tyr	Leu	Ala	Met	Cys	Arg	His	Leu	Leu	Val	Phe	50	55	60
Lys	Pro	Thr	Leu	Asn	Asn	Gly	Thr	Leu	Thr	His	Tyr	Thr	Ala	Phe	Ser	65	70	75
Ala	Ile	Arg	Ser	Met	Ile	Ser	Pro	Leu	Gly	Phe	Gly	Val	Leu	Arg	Asn	85	90	95
Val	Asp	Val	Val	Glu	Lys	Gln	Cys	Ala	Ile	Ile	Glu	Ala	Leu	Glu	Arg	100	105	110
Arg	Gly	Met	Leu	Asn	Glu	Val	Lys	Asp	Ala	Ala	Ala	Glu	Leu	Pro	Leu	115	120	125
Gln	Leu	Asp	Val	Thr	Asp	Thr	Ser	Thr	His	Val	Asp	Pro	Ala	Ile	Ile	130	135	140
Asp	Ser	Leu	Pro	Pro	Leu	Ile	Gln	Asn	Glu	Val	Ala	Ala	Gly	Leu	Thr	145	150	155
Pro	Leu	Glu	Leu	Pro	Ala	Ile	Thr	Met	Val	Gln	Thr	Ala	Pro	Leu	Ile	165	170	175
Thr	Pro	Ala	Leu	Gly	Met	Glu	Asn	Asp	Asp	Phe	Asn	Leu	Ser	Arg	Tyr	180	185	190
Phe	Phe	Ala	Ser	Gly	Phe	Ile	Asp	Gln	Ala	Ser	Arg	Ile	Gly	Gly	Thr	195	200	205
Val	Asn	Asp	Glu	Tyr	Val	Lys	Gly	Phe	Met	Gln	Ala	Leu	Pro	Arg	Phe	210	215	220
Asn	Asp	Asp	Gly	Ser	Ile	Arg	Val	Asp	Cys	Asp	Val	Leu	Thr	Cys	Leu	225	230	235
Cys	Ser	Arg	Asp	Glu	Asp	Leu	Ser	Val	Leu	Thr	Pro	Leu	Ser	Val	Asn	245	250	255
Thr	Thr	Ala	Val	Ser	Asp	Met	Phe	Glu	Leu	Ser	His	Asp	His	Gln	Pro	260	265	270
Met	Ala	Tyr	Leu	Arg	Thr	Val	Tyr	Val	Glu	Asp	Tyr	Ile	Ala	Ser	His	275	280	285
Leu	Glu	Ser	Leu	Lys	Asn	Arg	Glu	Thr	Ala	Thr	Pro	Leu	Val	Leu	Lys	290	295	300
Leu	Ser	Ala	Val	Asn	Ser	Val	Thr	Pro	Lys	Ala	Leu	Ile	Ala	Leu	Val	305	310	315
Glu	Ser	Lys	Ala	Thr	Asp	Ser	Ile	Phe	Asn	Gln	Ala	Asp	Lys	Arg	Trp	325	330	335
Met	Ile	Gly	Leu	Asp	Pro	Met	Phe	Ser	Glu	Cys	Trp	Pro	Gly	Ala	Ile	340	345	350
Ala	Leu	Leu	Ser	Met	Leu	Phe	Asp	His	Lys	Val	Asp	Tyr	Trp	Ser	Val	355	360	365
Arg	Cys	Arg	Phe	Ile	Leu	Arg	Ser	Ala	Leu	Ile	Gly	Met	Ser	Asp	Asp	370	375	380
Asp	Ala	Arg	Pro	Arg	Val	Gln	Met	Met	Arg	Met	His	Tyr	Ser	Leu	Thr	385	390	395
Thr	Pro	Thr	Thr	Trp	Tyr	Ser	Thr	Arg	Gly	Val	Tyr	Ser	Ala	Glu	Gly	405	410	415
Arg	Ser	Lys	Ile	His	Tyr	Ala	Ser	Gly	Asp	Arg	Met	Arg	Leu	Gly	Leu	420	425	430
Arg	Val	Gly	Glu	Val	Arg	Asp	Arg	Gln	Val	Thr	Met	Leu	Glu	Asp	Leu	435	440	445

Ser	Thr	Val	His	Ser	Met	Asp	Val	Ala	Asn	Met	Lys	Asp	Gln	Val	Ile
450						455					460				
Gln	Lys	Asp	Val	Gln	Leu	Lys	Ala	Leu	Thr	Glu	Ala	Met	Ser	Gln	Lys
465					470					475					480
Asp	Ser	Leu	Ile	Asp	Ser	Leu	Arg	Ala	Asp	Val	Ala	Gly	Leu	Thr	Glu
				485					490					495	
Arg	Ala	Val	Leu	Val	Gln	Ala	Glu	His	Leu	Thr	Thr	Ile	Ala	Asp	Met
			500					505					510		
Glu	Val	Arg	Arg	Val	Gln	Ser	Glu	Asp	Lys	Ala	Arg	Ile	Gly	Ile	Asp
		515					520				525				
Ala	Ala	Asn	Arg	Arg	Ala	Gly	Glu	Ala	Ile	Glu	Ser	Ala	His	Leu	Leu
		530				535					540				
Thr	Glu	Glu	Phe	Ser	Lys	Cys	Leu	Ser	Ser	Asp	Phe	Leu	Met	Val	Lys
545					550					555					560
Pro	Leu	Pro	Glu	His	Asn	Gln	Cys	Pro	Val	Pro	Leu	Leu	Glu	Ser	Val
				565					570					575	
Trp	Pro	Ala	Leu	Cys	Gln	Arg	Tyr	Ile	Gln	Asn	Met	Gln	Leu	Val	Asp
				580				585					590		
Glu	Ile	Trp	Thr	Asn	Lys	Leu	Ala	Asp	Ala	Thr	Asp	Thr	Ile	Ala	Thr
		595					600					605			
Glu	Met	Ala	Glu	Glu	Thr	Met	Arg	Ile	Ile	Ala	Glu	Arg	Asp	Cys	Gln
		610				615					620				
Ala	Met	Val	Met	Pro	Val	Val	Glu	Ala	Pro	Lys	Pro	Gln	Arg	Lys	Pro
625					630					635					640
Arg	Ile	Tyr	Glu	Pro	Ser	Asp	Asp	Asp	Leu	Glu	Arg	Thr	Ser	Val	Ser
				645					650					655	
Ser	Thr	Ser	Ser	Glu	Lys	Lys	Lys	Arg	Val	Ile	Trp	Ser	Arg	Ser	Ala
			660					665					670		
Thr	Arg	Val	Pro	Arg	Thr	Asp	Val	Asp	Phe	Ser	Ala	Ile	Thr	Ala	Ala
		675					680					685			
Arg	Arg	Asp	Glu	His	Phe	Glu	Leu	Gly	Met	Pro	Arg	Glu	Gly	Arg	Tyr
		690				695					700				
Pro	Val	His	Ser	Gly	Ile	Pro	Gly	Ser	Val	Arg	Ala	Thr	Met	Thr	Arg
705					710					715					720
Gly	Leu	Ala	Ile	Asp	Ser	Met	Ser	Glu	Phe	Pro	Lys	Ile	Ile	Asp	Phe
				725					730					735	
Gly	Gly	Ser	Asp	Asp	Trp	Asp	Val	Gly	Val	Asn	Asn	Val	Leu	Arg	Gly
			740					745					750		

<210> 12
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 <212> PRT
 <213> Viruses

<400> 12
 Met Ala Glu Ser Ile Thr Phe Gly Gly Pro Ser Arg Lys Leu Asp Leu
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Val	Ala	Ser	Gly	Ser	Lys	Pro	Ile	Thr	Val	Thr	Val	Thr	Val	Gly	Asp	20	25	30
Leu	Gly	Cys	Ser	Ile	Tyr	Gly	Thr	Val	Pro	Arg	Gly	Thr	Asp	Glu	Phe	35	40	45
Val	Thr	Ser	Asp	Arg	Tyr	Leu	Ala	Met	Cys	Arg	His	Leu	Leu	Val	Phe	50	55	60
Lys	Pro	Thr	Leu	Asn	Asn	Gly	Thr	Leu	Thr	His	Tyr	Thr	Ala	Phe	Ser	65	70	75
Ala	Ile	Arg	Ser	Met	Ile	Ser	Pro	Leu	Gly	Phe	Gly	Val	Met	Arg	Asn	85	90	95
Val	Asp	Val	Val	Glu	Lys	Gln	Cys	Ala	Ile	Ile	Glu	Ala	Leu	Glu	Arg	100	105	110
Arg	Gly	Met	Leu	Asn	Glu	Val	Lys	Asp	Ala	Ala	Ala	Glu	Leu	Pro	Leu	115	120	125
Gln	Leu	Asp	Val	Thr	Asp	Thr	Ser	Thr	His	Val	Asp	Pro	Ala	Ile	Ile	130	135	140
Asp	Ser	Leu	Pro	Pro	Leu	Ile	Gln	Asn	Glu	Val	Ala	Ala	Gly	Leu	Thr	145	150	155
Pro	Leu	Glu	Leu	Pro	Ala	Ile	Thr	Met	Val	Gln	Thr	Ala	Pro	Leu	Ile	165	170	175
Thr	Pro	Ala	Leu	Gly	Met	Glu	Asn	Asp	Asp	Phe	Asn	Leu	Ser	Arg	Tyr	180	185	190
Phe	Phe	Ala	Ser	Gly	Phe	Ile	Asp	Gln	Ala	Ser	Arg	Ile	Gly	Gly	Thr	195	200	205
Val	Asn	Asp	Glu	Tyr	Val	Lys	Gly	Phe	Met	Gln	Ala	Leu	Pro	Arg	Phe	210	215	220
Asn	Asp	Asp	Gly	Ser	Ile	Arg	Val	Asp	Cys	Asp	Val	Leu	Thr	Cys	Leu	225	230	235
Cys	Ser	Arg	Asp	Glu	Asp	Leu	Ser	Val	Leu	Thr	Pro	Leu	Ser	Val	Asn	245	250	255
Thr	Thr	Ala	Val	Ser	Asp	Met	Phe	Glu	Leu	Ser	His	Asp	His	Gln	Pro	260	265	270
Met	Ala	Tyr	Leu	Arg	Thr	Val	Tyr	Val	Glu	Asp	Tyr	Ile	Ala	Ser	His	275	280	285
Leu	Glu	Ser	Leu	Lys	Asn	Arg	Glu	Thr	Ala	Thr	Pro	Leu	Val	Leu	Lys	290	295	300
Leu	Ser	Ala	Val	Asn	Ser	Val	Thr	Pro	Lys	Ala	Leu	Ile	Ala	Leu	Val	305	310	315
Glu	Ser	Lys	Ala	Thr	Asp	Ser	Ile	Phe	Asn	Gln	Ala	Asp	Lys	Arg	Trp	325	330	335
Met	Ile	Gly	Leu	Asp	Pro	Met	Phe	Ser	Glu	Cys	Trp	Pro	Gly	Ala	Ile	340	345	350
Ala	Leu	Leu	Ser	Met	Leu	Phe	Asp	His	Lys	Val	Asp	Tyr	Trp	Ser	Val	355	360	365
Arg	Cys	Arg	Phe	Ile	Leu	Arg	Ser	Ala	Leu	Ile	Gly	Met	Ser	Asp	Asp	370	375	380
Asp	Ala	Arg	Pro	Arg	Val	Gln	Met	Met	Arg	Met	His	Tyr	Ser	Leu	Thr	385	390	395
Thr	Pro	Thr	Thr	Trp	Tyr	Ser	Thr	Arg	Gly	Val	Tyr	Ser	Ala	Glu	Gly	405	410	415

Arg	Ser	Lys	Ile	His	Tyr	Ala	Ser	Gly	Asp	Arg	Met	Arg	Leu	Gly	Leu			
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Arg	Val	Gly	Glu	Val	Arg	Asp	Arg	Gln	Val	Thr	Met	Leu	Glu	Asp	Leu			
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Ser	Thr	Ile	His	Ser	Met	Asp	Val	Ala	Asn	Met	Lys	Asp	Gln	Val	Ile			
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Gln	Lys	Asp	Val	Gln	Leu	Lys	Ala	Leu	Thr	Glu	Ala	Met	Ser	Gln	Lys			
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			485						490			495						
Arg	Ala	Val	Leu	Val	Gln	Ala	Glu	His	Leu	Thr	Thr	Ile	Ala	Asp	Met			
		500					505					510						
Glu	Val	Arg	Arg	Val	Gln	Ser	Glu	Asp	Lys	Ala	Arg	Ile	Gly	Ile	Asp			
		515				520					525							
Ala	Ala	Asn	Arg	Arg	Ala	Gly	Glu	Ala	Ile	Glu	Ser	Ala	His	Leu	Leu			
		530				535					540							
Thr	Glu	Glu	Phe	Ser	Lys	Cys	Leu	Ser	Ser	Asp	Phe	Leu	Met	Val	Lys			
545					550					555					560			
Pro	Leu	Pro	Glu	His	Asn	Gln	Cys	Pro	Val	Pro	Leu	Leu	Glu	Ser	Val			
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Trp	Pro	Ala	Leu	Cys	Gln	Arg	Tyr	Ile	Gln	Asn	Met	Gln	Leu	Val	Asp			
		580						585				590						
Glu	Ile	Trp	Thr	Asn	Lys	Leu	Ala	Asp	Ala	Thr	Asp	Thr	Ile	Ala	Thr			
		595				600					605							
Glu	Met	Ala	Glu	Glu	Thr	Met	Arg	Ile	Ile	Ala	Glu	Arg	Asp	Cys	Gln			
		610				615					620							
Ala	Met	Val	Met	Pro	Val	Val	Glu	Ala	Pro	Lys	Pro	Gln	Arg	Lys	Pro			
625					630					635					640			
Arg	Ile	Tyr	Glu	Pro	Ser	Asp	Asp	Asp	Leu	Glu	Arg	Thr	Ser	Val	Ser			
			645						650				655					
Ser	Thr	Ser	Ser	Glu	Lys	Lys	Lys	Arg	Val	Ile	Trp	Ser	Arg	Ser	Ala			
		660						665				670						
Thr	Arg	Val	Pro	Arg	Thr	Asp	Val	Asp	Phe	Ser	Ala	Ile	Thr	Ala	Ala			
		675					680					685						
Arg	Arg	Asp	Glu	His	Phe	Glu	Leu	Gly	Met	Pro	Arg	Glu	Gly	Arg	Tyr			
		690				695					700							
Pro	Val	His	Ser	Gly	Ile	Pro	Gly	Ser	Val	Arg	Ala	Thr	Met	Thr	Arg			
705					710					715					720			
Gly	Leu	Ala	Ile	Asp	Ser	Met	Ser	Glu	Phe	Pro	Lys	Ile	Ile	Asp	Phe			
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<211> 752

<212> PRT

<213> Viruses

<400> 13

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			20					25					30		
Leu	Gly	Cys	Ser	Ile	Tyr	Gly	Thr	Val	Pro	Arg	Gly	Thr	Asp	Glu	Phe
		35					40					45			
Val	Thr	Ser	Asp	Arg	Tyr	Leu	Ala	Met	Cys	Arg	His	Leu	Leu	Val	Phe
	50					55					60				
Lys	Pro	Thr	Leu	Asn	Asn	Gly	Thr	Leu	Thr	His	Tyr	Thr	Ala	Phe	Ser
65				70					75					80	
Ala	Ile	Arg	Ser	Met	Ile	Ser	Pro	Leu	Gly	Phe	Gly	Val	Met	Arg	Asn
				85				90					95		
Val	Asp	Val	Val	Glu	Lys	Gln	Cys	Ala	Ile	Ile	Glu	Ala	Leu	Glu	Arg
			100					105					110		
Arg	Gly	Met	Leu	Asn	Glu	Val	Lys	Asp	Ala	Ala	Val	Glu	Leu	Pro	Leu
	115						120					125			
Gln	Leu	Asp	Val	Thr	Asp	Thr	Ser	Thr	His	Val	Asp	Pro	Ala	Ile	Ile
	130					135					140				
Asp	Ser	Leu	Pro	Pro	Leu	Ile	Gln	Asn	Glu	Val	Ala	Ala	Gly	Leu	Thr
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Pro	Leu	Glu	Leu	Pro	Ala	Ile	Thr	Met	Val	Gln	Thr	Ala	Pro	Leu	Ile
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Thr	Pro	Ala	Leu	Gly	Met	Glu	Asn	Asp	Asp	Phe	Asn	Leu	Ser	Arg	Tyr
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Phe	Phe	Ala	Ser	Gly	Phe	Ile	Asp	Gln	Ala	Ser	Arg	Ile	Gly	Gly	Thr
		195					200					205			
Val	Asn	Asp	Glu	Tyr	Val	Lys	Gly	Phe	Met	Gln	Ala	Leu	Pro	Arg	Phe
	210					215					220				
Asn	Asp	Asp	Gly	Ser	Ile	Arg	Val	Asp	Cys	Asp	Val	Leu	Thr	Cys	Leu
225				230					235					240	
Cys	Ser	Arg	Asp	Glu	Asp	Leu	Ser	Val	Leu	Thr	Pro	Leu	Ser	Val	Asn
			245						250				255		
Thr	Thr	Ala	Val	Ser	Asp	Met	Phe	Glu	Leu	Ser	His	Asp	His	Gln	Pro
			260					265					270		
Met	Ala	Tyr	Leu	Arg	Thr	Val	Tyr	Val	Glu	Asp	Tyr	Ile	Ala	Ser	His
		275					280					285			
Leu	Glu	Ser	Leu	Lys	Asn	Arg	Glu	Thr	Ala	Thr	Pro	Leu	Val	Leu	Lys
	290					295					300				
Leu	Ser	Ala	Val	Asn	Ser	Val	Thr	Pro	Lys	Ala	Leu	Ile	Ala	Leu	Val
305				310					315					320	
Glu	Ser	Lys	Ala	Thr	Asp	Ser	Ile	Phe	Asn	Gln	Ala	Asp	Lys	Arg	Trp
			325					330					335		
Met	Ile	Gly	Leu	Asp	Pro	Met	Phe	Ser	Glu	Cys	Trp	Pro	Gly	Ala	Ile
			340				345						350		
Ala	Leu	Leu	Ser	Met	Leu	Phe	Asp	His	Lys	Val	Asp	Tyr	Trp	Ser	Val
		355				360						365			
Arg	Cys	Arg	Phe	Ile	Leu	Arg	Ser	Ala	Leu	Ile	Gly	Met	Ser	Asp	Asp
	370					375					380				

Asp	Ala	Arg	Pro	Arg	Val	Gln	Met	Met	Arg	Met	His	Tyr	Ser	Leu	Thr	385	390	395	400
Thr	Pro	Thr	Thr	Trp	Tyr	Ser	Thr	Arg	Gly	Val	Tyr	Ser	Ala	Glu	Gly	405	410	415	
Arg	Ser	Lys	Ile	His	Tyr	Ala	Ser	Gly	Asp	Arg	Met	Arg	Leu	Gly	Leu	420	425	430	
Arg	Val	Gly	Glu	Val	Arg	Asp	Arg	Gln	Val	Thr	Met	Leu	Glu	Asp	Leu	435	440	445	
Ser	Thr	Ile	His	Ser	Met	Asp	Val	Ala	Asn	Met	Lys	Asp	Gln	Val	Ile	450	455	460	
Gln	Lys	Asp	Val	Gln	Leu	Lys	Ala	Leu	Thr	Glu	Ala	Met	Ser	Gln	Lys	465	470	475	480
Asp	Ser	Leu	Ile	Asp	Ser	Leu	Arg	Ala	Asp	Val	Ala	Gly	Leu	Thr	Glu	485	490	495	
Arg	Ala	Val	Leu	Val	Gln	Ala	Glu	His	Leu	Thr	Thr	Ile	Ala	Asp	Met	500	505	510	
Glu	Val	Arg	Arg	Val	Gln	Ser	Glu	Asp	Lys	Ala	Arg	Ile	Gly	Ile	Asp	515	520	525	
Ala	Ala	Asn	Arg	Arg	Ala	Gly	Glu	Ala	Ile	Glu	Ser	Ala	His	Leu	Leu	530	535	540	
Thr	Glu	Glu	Phe	Ser	Lys	Cys	Leu	Ser	Ser	Asp	Phe	Leu	Met	Val	Lys	545	550	555	560
Pro	Leu	Ser	Glu	His	Asn	Gln	Cys	Pro	Val	Pro	Leu	Leu	Glu	Ser	Val	565	570	575	
Trp	Pro	Ala	Leu	Cys	Gln	Arg	Tyr	Ile	Gln	Asn	Met	Gln	Leu	Val	Asp	580	585	590	
Glu	Ile	Trp	Thr	Asn	Lys	Leu	Ala	Asp	Ala	Thr	Asp	Thr	Ile	Ala	Thr	595	600	605	
Glu	Met	Ala	Glu	Glu	Thr	Met	Arg	Ile	Ile	Ala	Glu	Arg	Asp	Cys	Gln	610	615	620	
Ala	Met	Val	Met	Pro	Val	Val	Glu	Ala	Pro	Lys	Pro	Gln	Arg	Lys	Pro	625	630	635	640
Arg	Ile	Tyr	Glu	Pro	Ser	Asp	Asp	Asp	Leu	Glu	Arg	Thr	Ser	Val	Ser	645	650	655	
Ser	Thr	Ser	Ser	Glu	Lys	Lys	Lys	Arg	Val	Ile	Trp	Ser	Arg	Ser	Ala	660	665	670	
Thr	Arg	Val	Pro	Arg	Thr	Asp	Val	Asp	Phe	Ser	Ala	Ile	Thr	Ala	Ala	675	680	685	
Arg	Arg	Asp	Glu	His	Phe	Glu	Leu	Gly	Met	Pro	Arg	Glu	Gly	Arg	Tyr	690	695	700	
Pro	Val	His	Ser	Gly	Ile	Pro	Gly	Ser	Val	Arg	Ala	Thr	Met	Thr	Arg	705	710	715	720
Gly	Leu	Ala	Ile	Asp	Ser	Met	Ser	Glu	Phe	Pro	Lys	Ile	Ile	Asp	Phe	725	730	735	
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<212> DNA
<213> Viruses

<400> 14

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cttcgcagcc tgcttggagg tcaaggacgc ttgaacggga aaattggaga tctggagaag	180
gacgtcaatc tgatacatTT gagagtgggt tccctggaac atgcgcttga tgatcttcgc	240
gctgattttg acgctttttac tccaactggt ggtcctgaga ttgacgacaa actggctccg	300
ctccagaaac agcttaaggt gctgaatgac cagctcacia tcatgaactc tgaggtcgct	360
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gggacggcac caaggccaat ccttcaaggt gaagatttca tgcggggcac ctgcaggatg	600
aatctcactg aactgcgct gatgtatggt ggtagccaca ttccactcct gcaacagtca	660
ctgcttcaac tggagacaac agttcctcct ggcccagacag attggaagaa gctgcctcaa	720
atggtgaaag gcgtgctctg gatgagtctg gtgaattatg aaggcgccaa ttagtttcct	780
gtggtggtga tgaggaaggt taatgctacg gtgacgactg tcattctccc agacatggtt	840
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<211> 896
<212> DNA
<213> Viruses

<400> 15

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gacgtcaatc tgatacatTTt gagagtggTt tccctggaac atgcgcttga tgatcttcgc	240
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gtgttggggg aagggatatt cggagactat caactgactg acctgcttgg acacactgTt	420
ggtggagttg cggctgtgac gacaaattca ctcacaagcg ccttccgctt gagcgaccga	480
ctgcctgcga ctactgttgg agatttcagt ctatccactg gagtaggata cacctttgtt	540
gggacggcac caaggccaat ccttcaagTt gaagatttca tgcggggcac ctgcaggatg	600
aatctcactg aactgcgct gatgtatgTt ggtagccaca ttccactcct gcaacagtca	660
ctgcttcaac tggagacaa agttcctcct ggcccgcag attggaagaa gctgcctcaa	720
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gtggtggtga tgaggaaggT taatgctacg gtgacgactg tcattctccc agacatggtt	840
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<210> 16
 <211> 896
 <212> DNA
 <213> Viruses

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cttcgcagcc tgcttggagg tcaaggacgc ttgaacggga aaattggaga tctggagaag	180
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ctgcttcaac tggagacaac agttcctcct ggcccgcacag attggaagaa gctgcctcaa	720
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<210> 17

<211> 2065

<212> DNA

<213> Viruses

<400> 17

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acgaatcctg gtggtcacat gtatgtgata tccggtgaca atacgtcaga tgtcgtgaaa	180
tgggacagtt taacgccctt gtatgggata gatggacaga tggttgttgt gctgactgcg	240
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gaagcatcac agcagatggc ttgttaccgt gattggaaga aggatattgt cctgcttgat	360
ggctatgttg gtagtactcc tcaatctgct gtcactaact ttgtgactgg ggctagtgta	420
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ggtagtctga ccgctgacat gcattccatt ctgaggatgt tttccctctc cctcaagcca	600
accaatgtgt gctacctcta ccctgaagcg gctctgcaag tgattcgagc tatttcaccg	660
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gaacctgttt tcaatggcac tggacccaat caacctccac tgactgatca gagcgaagtc	780
cgttcaatcg caaggtctga tgcattccctg gctcaactct ctctcatctc cagcacagaa	840
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gtcatggcaa ctcatcttga gagagctgca aaagcaatga cagcaattga tgatgaagat	1620
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<210> 18

<211> 2065

<212> DNA

<213> Viruses

<400> 18

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gtagctatgt ctacttttga gaagatgggtg aatttaattg agatgtatag accattactt	300
gaagcatcac agcagatggc ttgttaccgt gattggaaga aggatattgt cctgcttgat	360
ggctatgttg gtagtactcc tcaatctgct gtcactaact ttgtgactgg ggctagtgtg	420
atcaatctga gagaactgag aagcctgggg aagatgtatc aaaacatact cgggtgcata	480
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<212> DNA

<213> Viruses

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 <212> DNA
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 <213> Viruses

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<211> 2259

<212> DNA

<213> Viruses

<400> 23

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<210> 25
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<400> 25	
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<210> 26
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<400> 26

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15

<210> 27

<211> 16

<212> DNA

<213> Viruses

<400> 27

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16

<210> 28

<211> 28

<212> DNA

<213> Viruses

<400> 28

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28

<210> 29

<211> 23

<212> DNA

<213> Viruses

<400> 29

tcaccaccac aggaactaca ttg

23

<210> 30

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<212> DNA

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<210> 31

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<212> DNA

<213> Viruses

<400> 31

agtctggtgg attatga

17

<210> 32

<211> 21

<212> DNA

<213> Viruses

<400> 32

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21

<210> 33

<211> 22

<212> DNA

<213> Viruses

<400> 33

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22

<210> 34

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<212> DNA

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<212> DNA

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<210> 36

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<212> DNA

<213> Viruses

<400> 36

gaccgctgac atgcattcc

19

<210> 37

<211> 20

<212> DNA

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