His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30
Ser Gly Ala Pro Pro Pro Ser-NH_2 [SEQ ID NO: 17]

Fig. 1

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15
Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30
Ser Gly Ala Pro Pro Pro Ser-NH_2 [SEQ ID NO: 27]

Fig. 2

~~Compound~~ [SEQ.ID.NO]	Xaa_1	Xaa_2	Xaa_3	Xaa_4	Xaa_5	Xaa_6	Xaa_7	Xaa_8	Xaa_9	Xaa_{10}	Xaa_{11}	Xaa_{12}	Xaa_{13}	Xaa_{14}	Xaa_{15}	Xaa_{16}	Xaa_{17}	Xaa_{18}	Z
9 15 [24]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	pGly	Phe	Ile	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
10 16 [25]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	naph	Ile	Glu	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
11 17 [26]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Val	Glu	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
12 18 [27]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Val	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
13 19 [28]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	tBuG	Glu	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
14 20 [29]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	tBuG	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
15 21 [30]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Asp	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
16 22 [31]	His	Ala	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
17 23 [32]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	tPro	tPro	tPro	tPro	Ser	NH_2
18 24 [33]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	Pro	tPro	tPro	tPro	Ser	NH_2
19 25 [34]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	hPro	hPro	hPro	hPro	Ser	NH_2
20 26 [35]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	Pro	hPro	hPro	hPro	Ser	NH_2
21 27 [36]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	tPro	tPro	tPro	tPro	Ser	NH_2
22 28 [37]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	hPro	hPro	hPro	hPro	Ser	NH_2
23 29 [38]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	MeAla	MeAla	MeAla	MeAla	Ser	NH_2
24 30 [39]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	Pro	MeAla	MeAla	MeAla	Ser	NH_2
25 31 [40]	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	MeAla	MeAla	MeAla	MeAla	Ser	NH_2

Fig. 3

~~Amino Acid Position~~	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 1	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 2	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 3	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 4	His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 5	His	Gly	Glu	Gly	Ala	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 6	His	Gly	Glu	Gly	Thr	Ala	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 7	His	Gly	Glu	Gly	Thr	Phe	Thr	Ala	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 8	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 9	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ala	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 10	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Ala	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 11	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Ala	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 12	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu	Glu	Ala	Val	Arg
Compound 13	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Ala	Glu	Glu	Ala	Val	Arg
Compound 14	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Ala	Glu	Ala	Val	Arg
Compound 15	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Ala	Ala	Val	Arg
Compound 16	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Ala	Arg
Compound 17	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Ala
Compound 18	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 19	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 20	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg

SUBSTITUTE SHEET (RULE 26)

3/25

Fig. 4A1

~~Amino Acid Position~~	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Compound 1	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	NH2								
Compound 2	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2										
Compound 3	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 4	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 5	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 6	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 7	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 8	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 9	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 10	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 11	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 12	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 13	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 14	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 15	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 16	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 17	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 18	Ala	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
Compound 19	Leu	Phe	Ile	Ala	Phe	Leu	Lys	Asn	NH2										
Compound 20	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn	NH2										

SUBSTITUTE SHEET (RULE 26)

Fig. 4A2

~~Amino Acid~~ Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 21	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 22	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 23	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 24	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 25	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 26	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 27	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 28	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 29	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 30	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 31	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 32	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 33	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 34	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 35	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 36	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 37	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 38	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 39	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 40	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 41	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4A3

~~Amino Acid Position~~	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Compound 21	Leu	Phe	Ile	Glu	Phe	Ala	Lys	Asn	NH2											
Compound 22	Leu	Phe	Ile	Glu	Phe	Leu	Ala	Asn	NH2											
Compound 23	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Ala	NH2											
Compound 24	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
Compound 25	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
Compound 26	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
Compound 27	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
Compound 28	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			
Compound 29	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			
Compound 30	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
Compound 31	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
Compound 32	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	NH2					
Compound 33	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	NH2					
Compound 34	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
Compound 35	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
Compound 36	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
Compound 37	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
Compound 38	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	NH2								
Compound 39	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	NH2								
Compound 40	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	NH2									
Compound 41	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	NH2										

SUBSTITUTE SHEET (RULE 26)

Fig. 4A-4

REPLACEMENT SHEET
28 NOV 2003
PCT/US00/11814

WO 00/66...

~~Amino Acid Position~~	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 42	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 43	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 44	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 45	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 46	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 47	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 48	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 49	Arg	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 50	His	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 51	His	Gly	Glu	Gly	Thr	naph	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 52	His	Gly	Glu	Gly	Thr	Phe	Ser	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 53	His	Gly	Glu	Gly	Thr	Phe	Ser	Thr	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 54	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Glu	Leu	Ser	Lys	Gln	Met	Ala	Glu	Glu	Ala	Val	Arg
Compound 55	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	pGly	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 56	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 57	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 58	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 59	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 60	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 61	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

SUBSTITUTE SHEET (RULE 26)

Fig. 4B1

~~Amino Acid Position~~	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Compound 42	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	NH2										
Compound 43	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	tPro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
Compound 44	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
Compound 45	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Nme	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
Compound 46	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Nme	Ser	Ser	Gly	Ala	Nme	Nme	NH2		
Compound 47	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	hPro	NH2		
Compound 48	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	NH2			
Compound 49	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
Compound 50	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	NH2									
Compound 51	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 52	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 53	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 54	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 55	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 56	Leu	naph	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 57	Leu	Phe	tBug	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 58	Leu	Phe	Ile	Asp	Phe	Leu	Lys	Asn	NH2											
Compound 59	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
Compound 60	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	NH2										
Compound 61	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	hPro	NH2		

8/25

Fig. 4B2

~~Amino Acid Position~~	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 70	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 71	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 72	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 73	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 74	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 75	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 76	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 77	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 78	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 79	Ala	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 80	Ala	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 81	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 82	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 83	Ala	Gly	Asp	Gly	Ala	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 84	Ala	Gly	Asp	Gly	Ala	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 85	Ala	Gly	Asp	Gly	Thr	Nala	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 86	Ala	Gly	Asp	Gly	Thr	Nala	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 87	Ala	Gly	Asp	Gly	Thr	Phe	Ser	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 88	Ala	Gly	Asp	Gly	Thr	Phe	Ser	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 89	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ala	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4E1

REPLACEMENT SHEET
28 NOV 2003

~~Amino Acid Position~~	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Compound 70	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 71	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 72	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 73	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 74	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 75	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 76	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 77	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 78	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 79	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 80	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 81	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 82	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 83	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 84	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 85	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 86	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 87	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 88	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 89	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											

SUBSTITUTE SHEET (RULE 26)

Fig. 4E2

~~Amino Acid~~ Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 90	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ala	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 91	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 92	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 93	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Glu	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 94	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Glu	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 95	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 96	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 97	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Pgly	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 98	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Pgly	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 99	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ala	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 100	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ala	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 101	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Ala	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 102	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Ala	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 103	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Ala	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 104	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Ala	Leu	Glu	Glu	Glu	Ala	Val	Arg

115 116 117 118 119 120 121 122 123 124 125 126 127 128

Fig. 4E3

Amino Acid Position	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Compound 90	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 91	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 92	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 93	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 94	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 95	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 96	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 97	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 98	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 99	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 100	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 101	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 102	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 103	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 104	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											

Fig. 4E4

REPLACEMENT SHEET
PCT/US00/11814
28 NOV 2003

~~Amino Acid Position~~	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 105	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu	Glu	Ala	Val	Arg
Compound 106	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu	Glu	Ala	Val	Arg
Compound 107	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	pGly	Glu	Glu	Glu	Ala	Val	Arg
Compound 108	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	pGly	Glu	Glu	Glu	Ala	Val	Arg
Compound 109	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Ala	Glu	Glu	Ala	Val	Arg
Compound 110	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Ala	Glu	Glu	Ala	Val	Arg
Compound 111	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Ala	Glu	Ala	Val	Arg
Compound 112	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Ala	Glu	Ala	Val	Arg
Compound 113	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Ala	Ala	Val	Arg
Compound 114	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Ala	Ala	Val	Arg
Compound 115	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Ala	Arg
Compound 116	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Ala	Arg
Compound 117	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Ala
Compound 118	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Ala
Compound 119	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 120	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 121	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 122	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 123	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 124	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4F1

SUBSTITUTE SHEET (RULE 26)

~~Amino Acid Position~~	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Compound 105	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 106	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 107	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 108	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 109	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 110	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 111	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 112	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 113	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 114	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 115	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 116	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 117	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 118	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 119	Ala	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 120	Ala	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 121	Leu	Nala	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 122	Leu	Nala	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 123	Leu	Phe	Val	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 124	Leu	Phe	Val	Glu	Phe	Leu	Lys	Asn	NH2											

Fig. 4F2

~~Amino Acid Position~~	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 125	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 126	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 127	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 128	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 129	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 130	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 131	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 132	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 133	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 134	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 135	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 136	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 137	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 138	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 139	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 140	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165

Fig. 4F3

~~Amino Acid Position~~	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Compound 125	Leu	Phe	tGly	Glu	Trp	Leu	Lys	Asn	NH2											
Compound 126	Leu	Phe	tGly	Glu	Phe	Leu	Lys	Asn	NH2											
Compound 127	Leu	Phe	Ile	Asp	Trp	Leu	Lys	Asn	NH2											
Compound 128	Leu	Phe	Ile	Asp	Phe	Leu	Lys	Asn	NH2											
Compound 129	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn	NH2											
Compound 130	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn	NH2											
Compound 131	Leu	Phe	Ile	Glu	Trp	Ala	Lys	Asn	NH2											
Compound 132	Leu	Phe	Ile	Glu	Phe	Ala	Lys	Asn	NH2											
Compound 133	Leu	Phe	Ile	Glu	Trp	Leu	Ala	Asn	NH2											
Compound 134	Leu	Phe	Ile	Glu	Phe	Leu	Ala	Asn	NH2											
Compound 135	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Ala	NH2											
Compound 136	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Ala	NH2											
Compound 137	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
Compound 138	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
Compound 139	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
Compound 140	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			

Fig. 4F4

~~Amino Acid Position~~	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Compound 141	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 142	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 143	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 144	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 145	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 146	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 147	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 148	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 149	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 150	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
Compound 151	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 152	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 153	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 154	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 155	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 156	His	Gly	Asp	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 157	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
Compound 158	Ala	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg

166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183

Fig. 4G1

~~Amino Acid Position~~	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Compound 141	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			
Compound 142	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
Compound 143	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
Compound 144	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	NH2					
Compound 145	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
Compound 146	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
Compound 147	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
Compound 148	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	NH2								
Compound 149	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	NH2									
Compound 150	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	NH2										
Compound 151	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	tPro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
Compound 152	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
Compound 153	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Nme	Ser	Ser	Gly	Ala	Nme	Nme	NH2		
Compound 154	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	NH2			
Compound 155	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
Compound 156	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	NH2									
Compound 157	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser	NH2
Compound 158	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser	NH2

Fig. 4G2

Compound No.

159 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn-NH_2 (SEQ ID No. 184)

160 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn-NH_2 (SEQ ID No. 185)

161 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID No. 186)

162 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID No. 187)

163 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID No. 188)

164 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID No. 189)

Fig. 4H

Compound No.	
165	4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID No. 190)
166	4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID No. 191)
167	Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn -NH_2 (SEQ ID No. 192)
168	Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn -NH_2 (SEQ ID No. 193)
169	Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID No. 194)
170	Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID No. 195)

Fig. 4I

Compound No.

171 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID No. 196)

172 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID No. 197)

173 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID No. 198)

174 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID No. 199)

Fig. 4J

His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser-NH_2 [SEQ ID.NO. 1]
35

Fig. 1

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser-NH_2 [SEQ ID.NO. 2]
35

Fig. 2

SEQ ID NO:	Xaa_1	Xaa_2	Xaa_3	Xaa_4	Xaa_5	Xaa_6	Xaa_7	Xaa_8	Xaa_9	Xaa_{10}	Xaa_{11}	Xaa_{12}	Xaa_{13}	Xaa_{14}	Xaa_{15}	Xaa_{16}	Xaa_{17}	Xaa_{18}	Z
9	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	pGly	Phe	Ile	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
10	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	naph	Ile	Glu	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
11	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Val	Glu	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
12	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Val	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
13	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	tBuG	Glu	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
14	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	tBuG	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
15	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Asp	Trp	Pro	Pro	Pro	Pro	Ser	NH_2
16	His	Ala	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	Pro	Pro	Pro	Pro	Ser	NH_2
17	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	tPro	tPro	tPro	tPro	Ser	NH_2
18	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	Pro	tPro	tPro	tPro	Ser	NH_2
19	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	hPro	hPro	hPro	hPro	Ser	NH_2
20	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	Pro	hPro	hPro	hPro	Ser	NH_2
21	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	tPro	tPro	tPro	tPro	Ser	NH_2
22	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	hPro	hPro	hPro	hPro	Ser	NH_2
23	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	MeAla	MeAla	MeAla	MeAla	Ser	NH_2
24	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Met	Phe	Ile	Glu	Trp	Pro	MeAla	MeAla	MeAla	Ser	NH_2
25	His	Gly	Glu	Phe	Thr	Ser	Asp	Leu	Leu	Phe	Ile	Glu	Phe	MeAla	MeAla	MeAla	MeAla	Ser	NH_2

Fig. 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
26	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
27	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
28	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
29	His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
30	His	Gly	Glu	Gly	Ala	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
31	His	Gly	Glu	Gly	Thr	Ala	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
32	His	Gly	Glu	Gly	Thr	Phe	Thr	Ala	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
33	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
34	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ala	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
35	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Ala	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
36	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Ala	Leu	Glu	Glu	Glu	Ala	Val	Arg
37	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu	Glu	Ala	Val	Arg
38	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Ala	Glu	Glu	Ala	Val	Arg
39	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Ala	Glu	Ala	Val	Arg
40	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Ala	Ala	Val	Arg
41	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Ala	Arg
42	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Ala
43	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
44	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
45	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4A1

REPLACEMENT SHEET
28 Nov 2003

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
26	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	NH2								
27	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2										
28	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
29	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
30	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
31	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
32	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
33	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
34	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
35	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
36	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
37	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
38	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
39	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
40	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
41	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
42	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
43	Ala	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2										
44	Leu	Phe	Ile	Ala	Phe	Leu	Lys	Asn	NH2										
45	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn	NH2										

Fig. 4A2

29 Nov 2003
REPLACEMENT SHEET

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
46	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
47	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
48	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
49	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
50	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
51	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
52	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
53	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
54	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
55	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
56	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
57	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
58	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
59	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
60	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
61	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
62	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
63	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
64	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
65	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
66	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4A3

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
46	Leu	Phe	Ile	Glu	Phe	Ala	Lys	Asn	NH2											
47	Leu	Phe	Ile	Glu	Phe	Leu	Ala	Asn	NH2											
48	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Ala	NH2											
49	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
50	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
51	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
52	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
53	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			
54	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			
55	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
56	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
57	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	NH2					
58	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	NH2					
59	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
60	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
61	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
62	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
63	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	NH2								
64	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	NH2								
65	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	NH2									
66	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	NH2										

Fig. 4A4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
67	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
68	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
69	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
70	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
71	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
72	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
73	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
74	Arg	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
75	His	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
76	His	Gly	Glu	Gly	Thr	naph	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
77	His	Gly	Glu	Gly	Thr	Phe	Ser	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
78	His	Gly	Glu	Gly	Thr	Phe	Ser	Thr	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
79	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Glu	Leu	Ser	Lys	Gln	Met	Ala	Glu	Glu	Ala	Val	Arg
80	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	pGly	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
81	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
82	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
83	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
84	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
85	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
86	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4B1

REPLACEMENT SHEET
2 Nov 2003

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
67	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	NH2										
68	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	tPro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
69	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
70	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Nme	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
71	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Nme	Ser	Ser	Gly	Ala	Nme	Nme	NH2		
72	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	hPro	NH2		
73	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	NH2			
74	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
75	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	NH2									
76	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
77	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
78	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
79	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
80	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
81	Leu	naph	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
82	Leu	Phe	tBug	Glu	Trp	Leu	Lys	Asn	NH2											
83	Leu	Phe	Ile	Asp	Phe	Leu	Lys	Asn	NH2											
84	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
85	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	NH2										
86	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	hPro	NH2		

Fig. 4B2

REPLACEMENT SHEET
29 NOV 2003

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
95	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
96	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
97	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
98	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
99	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
100	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
101	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
102	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
103	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
104	Ala	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
105	Ala	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
106	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
107	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
108	Ala	Gly	Asp	Gly	Ala	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
109	Ala	Gly	Asp	Gly	Ala	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
110	Ala	Gly	Asp	Gly	Thr	Nala	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
111	Ala	Gly	Asp	Gly	Thr	Nala	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
112	Ala	Gly	Asp	Gly	Thr	Phe	Ser	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
113	Ala	Gly	Asp	Gly	Thr	Phe	Ser	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
114	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ala	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4E1

REPLACEMENT SHEET
28 Nov 2003

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
95	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
96	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
97	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
98	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
99	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
100	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
101	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
102	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
103	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
104	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
105	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
106	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
107	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
108	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
109	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
110	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
111	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
112	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
113	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
114	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											

Fig. 4E2

28 NOV 2003
REPLACEMENT SHEET

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
115	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ala	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
116	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
117	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
118	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Glu	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
119	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Glu	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
120	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
121	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
122	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Pgly	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
123	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Pgly	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
124	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ala	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
125	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ala	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
126	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Ala	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
127	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Ala	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
128	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Ala	Met	Glu	Glu	Glu	Ala	Val	Arg
129	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Ala	Leu	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4E3

REPLACEMENT SHEET
Nov 2003

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
115	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
116	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
117	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
118	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
119	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
120	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
121	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
122	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
123	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
124	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
125	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
126	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
127	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
128	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
129	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											

Fig. 4E4

REPLACEMENT SHEET

24 NOV 2003

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
130	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu	Glu	Ala	Val	Arg
131	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Ala	Glu	Glu	Glu	Ala	Val	Arg
132	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	pGly	Glu	Glu	Glu	Ala	Val	Arg
133	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	pGly	Glu	Glu	Glu	Ala	Val	Arg
134	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Ala	Glu	Glu	Ala	Val	Arg
135	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Ala	Glu	Glu	Ala	Val	Arg
136	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Ala	Glu	Ala	Val	Arg
137	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Ala	Glu	Ala	Val	Arg
138	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Ala	Ala	Val	Arg
139	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Ala	Ala	Val	Arg
140	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Ala	Arg
141	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Ala	Arg
142	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Ala
143	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Ala
144	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
145	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
146	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
147	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
148	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
149	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4F1

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
130	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
131	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
132	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
133	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
134	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
135	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
136	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
137	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
138	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
139	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
140	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
141	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
142	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
143	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
144	Ala	Phe	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
145	Ala	Phe	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
146	Leu	Nala	Ile	Glu	Trp	Leu	Lys	Asn	NH2											
147	Leu	Nala	Ile	Glu	Phe	Leu	Lys	Asn	NH2											
148	Leu	Phe	Val	Glu	Trp	Leu	Lys	Asn	NH2											
149	Leu	Phe	Val	Glu	Phe	Leu	Lys	Asn	NH2											

REPLACEMENT SHEET
28 Nov 2003

Fig. 4F2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
150	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
151	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
152	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
153	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
154	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
155	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
156	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
157	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
158	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
159	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
160	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
161	Ala	Gly	Asp	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
162	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
163	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
164	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
165	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4F3

REPLACEMENT SHEET
28 NOV 2005

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
150	Leu	Phe	tGly	Glu	Trp	Leu	Lys	Asn	NH2											
151	Leu	Phe	tGly	Glu	Phe	Leu	Lys	Asn	NH2											
152	Leu	Phe	Ile	Asp	Trp	Leu	Lys	Asn	NH2											
153	Leu	Phe	Ile	Asp	Phe	Leu	Lys	Asn	NH2											
154	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn	NH2											
155	Leu	Phe	Ile	Glu	Ala	Leu	Lys	Asn	NH2											
156	Leu	Phe	Ile	Glu	Trp	Ala	Lys	Asn	NH2											
157	Leu	Phe	Ile	Glu	Phe	Ala	Lys	Asn	NH2											
158	Leu	Phe	Ile	Glu	Trp	Leu	Ala	Asn	NH2											
159	Leu	Phe	Ile	Glu	Phe	Leu	Ala	Asn	NH2											
160	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Ala	NH2											
161	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Ala	NH2											
162	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
163	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	NH2	
164	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	NH2		
165	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			

Fig. 4F4

REPLACEMENT SHEET
24 Nov 2003

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
166	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
167	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
168	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
169	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
170	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
171	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
172	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
173	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
174	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
175	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg
176	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
177	His	Gly	Glu	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
178	His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Ala	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
179	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
180	His	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
181	His	Gly	Asp	Ala	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
182	Ala	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu	Glu	Ala	Val	Arg
183	Ala	Gly	Ala	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu	Glu	Ala	Val	Arg

Fig. 4G1

REPLACEMENT SHEET
24 Nov 2003

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
166	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	NH2			
167	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
168	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
169	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	NH2					
170	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	NH2						
171	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
172	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	NH2							
173	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	NH2								
174	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	NH2									
175	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	NH2										
176	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	tPro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
177	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	tPro	tPro	tPro	NH2	
178	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Nme	Ser	Ser	Gly	Ala	Nme	Nme	NH2		
179	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	hPro	Ser	Ser	Gly	Ala	hPro	NH2			
180	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	NH2				
181	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	NH2									
182	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser	NH2
183	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser	NH2

Fig. 4G2

REPLACEMENT SHEET
28 Nov 2003

Compound No.

159 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn-NH_2 (SEQ ID. NO. 184)

160 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn-NH_2 (SEQ ID. NO. 185)

161 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID. NO. 186)

162 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID. NO. 187)

163 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID. NO. 188)

164 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID. NO. 189)

Fig. 4H

REPLACEMENT SHEET
28 Nov 2003

Compound
No.

165 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID. NO. 190)

166 4-Imidazolylpropionyl-Gly Glu Gly Thr Phe Thr Ser Ala Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID. NO. 191)

167 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn -NH_2 (SEQ ID. NO. 192)

168 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn -NH_2 (SEQ ID. NO. 193)

169 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID. NO. 194)

170 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys-NH^{E}octanoyl Asn Gly Gly-NH_2 (SEQ ID. NO. 195)

Fig. 4I

REPLACEMENT SHEET
28 NOV 2003

Compound
No.

171 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID. NO. 196)

172 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl-NH_2 (SEQ ID. NO. 197)

173 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID. NO. 198)

174 Ala Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys-NH^{E}octanoyl Gly Gly-NH_2 (SEQ ID. NO. 199)

Fig. 4J

REPLACEMENT SHEET
21 Nov 2003