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John, O'Brien P
Kathleen, Oppen

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<130> CL5408 WO PCT

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Thr	Val	Thr	Gln	Ser	Asn	Ser	Gly	Thr	Thr	Ala	Ser	Leu	Val	Thr	Ser
	50					55					60				

Pro	Glu	Ala	Thr	Lys	Glu	Ala	Asp	Lys	Arg	Thr	Asn	Thr	Lys	Glu	Ala
65					70					75				80	

Asp	Val	Leu	Thr	Pro	Ala	Lys	Glu	Thr	Asn	Ala	Val	Glu	Thr	Ala	Thr
				85					90					95	

Thr	Thr	Asn	Thr	Gln	Ala	Thr	Ala	Glu	Ala	Ala	Thr	Thr	Ala	Thr	Thr
		100						105					110		

Ala	Asp	Val	Ala	Val	Ala	Ala	Val	Pro	Asn	Lys	Glu	Ala	Val	Val	Thr
		115					120					125			

Thr	Asp	Ala	Pro	Ala	Val	Thr	Thr	Glu	Lys	Ala	Glu	Glu	Gln	Pro	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

130

135

140

Thr Val Lys Ala Glu Val Val Asn Thr Glu Val Lys Ala Pro Glu Ala
145 150 155 160

Ala Leu Lys Asp Ser Glu Val Glu Ala Ala Leu Ser Leu Lys Asn Ile
165 170 175

Lys Asn Ile Asp Gly Lys Tyr Tyr Tyr Val Asn Glu Asp Gly Ser His
180 185 190

Lys Glu Asn Phe Ala Ile Thr Val Asn Gly Gln Leu Leu Tyr Phe Gly
195 200 205

Lys Asp Gly Ala Leu Thr Ser Ser Ser Thr Tyr Ser Phe Thr Pro Gly
210 215 220

Thr Thr Asn Ile Val Asp Gly Phe Ser Ile Asn Asn Arg Ala Tyr Asp
225 230 235 240

Ser Ser Glu Ala Ser Phe Glu Leu Ile Asp Gly Tyr Leu Thr Ala Asp
245 250 255

Ser Trp Tyr Arg Pro Ala Ser Ile Ile Lys Asp Gly Val Thr Trp Gln
260 265 270

Ala Ser Thr Ala Glu Asp Phe Arg Pro Leu Leu Met Ala Trp Trp Pro
275 280 285

Asn Val Asp Thr Gln Val Asn Tyr Leu Asn Tyr Met Ser Lys Val Phe
290 295 300

Asn Leu Asp Ala Lys Tyr Ser Ser Thr Asp Lys Gln Glu Thr Leu Lys
305 310 315 320

Val Ala Ala Lys Asp Ile Gln Ile Lys Ile Glu Gln Lys Ile Gln Ala
325 330 335

Glu Lys Ser Thr Gln Trp Leu Arg Glu Thr Ile Ser Ala Phe Val Lys
340 345 350

Thr Gln Pro Gln Trp Asn Lys Glu Thr Glu Asn Tyr Ser Lys Gly Gly
355 360 365

Gly Glu Asp His Leu Gln Gly Gly Ala Leu Leu Tyr Val Asn Asp Ser
370 375 380

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Arg Thr Pro Trp Ala Asn Ser Asp Tyr Arg Arg Leu Asn Arg Thr Ala
385 390 395 400

Thr Asn Gln Thr Gly Thr Ile Asp Lys Ser Ile Leu Asp Glu Gln Ser
405 410 415

Asp Pro Asn His Met Gly Gly Phe Asp Phe Leu Leu Ala Asn Asp Val
420 425 430

Asp Leu Ser Asn Pro Val Val Gln Ala Glu Gln Leu Asn Gln Ile His
435 440 445

Tyr Leu Met Asn Trp Gly Ser Ile Val Met Gly Asp Lys Asp Ala Asn
450 455 460

Phe Asp Gly Ile Arg Val Asp Ala Val Asp Asn Val Asp Ala Asp Met
465 470 475 480

Leu Gln Leu Tyr Thr Asn Tyr Phe Arg Glu Tyr Tyr Gly Val Asn Lys
485 490 495

Ser Glu Ala Asn Ala Leu Ala His Ile Ser Val Leu Glu Ala Trp Ser
500 505 510

Leu Asn Asp Asn His Tyr Asn Asp Lys Thr Asp Gly Ala Ala Leu Ala
515 520 525

Met Glu Asn Lys Gln Arg Leu Ala Leu Leu Phe Ser Leu Ala Lys Pro
530 535 540

Ile Lys Glu Arg Thr Pro Ala Val Ser Pro Leu Tyr Asn Asn Thr Phe
545 550 555 560

Asn Thr Thr Gln Arg Asp Glu Lys Thr Asp Trp Ile Asn Lys Asp Gly
565 570 575

Ser Lys Ala Tyr Asn Glu Asp Gly Thr Val Lys Gln Ser Thr Ile Gly
580 585 590

Lys Tyr Asn Glu Lys Tyr Gly Asp Ala Ser Gly Asn Tyr Val Phe Ile
595 600 605

Arg Ala His Asp Asn Asn Val Gln Asp Ile Ile Ala Glu Ile Ile Lys
610 615 620

Lys Glu Ile Asn Pro Lys Ser Asp Gly Phe Thr Ile Thr Asp Ala Glu
625 630 635 640

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Met Lys Gln Ala Phe Glu Ile Tyr Asn Lys Asp Met Leu Ser Ser Asp
645 650 655

Lys Lys Tyr Thr Leu Asn Asn Ile Pro Ala Ala Tyr Ala Val Met Leu
660 665 670

Gln Asn Met Glu Thr Ile Thr Arg Val Tyr Tyr Gly Asp Leu Tyr Thr
675 680 685

Asp Asp Gly His Tyr Met Glu Thr Lys Ser Pro Tyr Tyr Asp Thr Ile
690 695 700

Val Asn Leu Met Lys Ser Arg Ile Lys Tyr Val Ser Gly Gly Gln Ala
705 710 715 720

Gln Arg Ser Tyr Trp Leu Pro Thr Asp Gly Lys Met Asp Asn Ser Asp
725 730 735

Val Glu Leu Tyr Arg Thr Asn Glu Val Tyr Thr Ser Val Arg Tyr Gly
740 745 750

Lys Asp Ile Met Thr Ala Asn Asp Thr Glu Gly Ser Lys Tyr Ser Arg
755 760 765

Thr Ser Gly Gln Val Thr Leu Val Ala Asn Asn Pro Lys Leu Asn Leu
770 775 780

Asp Gln Ser Ala Lys Leu Asn Val Glu Met Gly Lys Ile His Ala Asn
785 790 795 800

Gln Lys Tyr Arg Ala Leu Ile Val Gly Thr Ala Asp Gly Ile Lys Asn
805 810 815

Phe Thr Ser Asp Ala Asp Ala Ile Ala Ala Gly Tyr Val Lys Glu Thr
820 825 830

Asp Ser Asn Gly Val Leu Thr Phe Gly Ala Asn Asp Ile Lys Gly Tyr
835 840 845

Glu Thr Phe Asp Met Ser Gly Phe Val Ala Val Trp Val Pro Val Gly
850 855 860

Ala Ser Asp Asn Gln Asp Ile Arg Val Ala Pro Ser Thr Glu Ala Lys
865 870 875 880

Lys Glu Gly Glu Leu Thr Leu Lys Ala Thr Glu Ala Tyr Asp Ser Gln
885 890 895

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Leu Ile Tyr Glu Gly Phe Ser Asn Phe Gln Thr Ile Pro Asp Gly Ser
900 905 910

Asp Pro Ser Val Tyr Thr Asn Arg Lys Ile Ala Glu Asn Val Asp Leu
915 920 925

Phe Lys Ser Trp Gly Val Thr Ser Phe Glu Met Ala Pro Gln Phe Val
930 935 940

Ser Ala Asp Asp Gly Thr Phe Leu Asp Ser Val Ile Gln Asn Gly Tyr
945 950 955 960

Ala Phe Ala Asp Arg Tyr Asp Leu Ala Met Ser Lys Asn Asn Lys Tyr
965 970 975

Gly Ser Lys Glu Asp Leu Arg Asp Ala Leu Lys Ala Leu His Lys Ala
980 985 990

Gly Ile Gln Ala Ile Ala Asp Trp Val Pro Asp Gln Ile Tyr Gln Leu
995 1000 1005

Pro Gly Lys Glu Val Val Thr Ala Thr Arg Thr Asp Gly Ala Gly
1010 1015 1020

Arg Lys Ile Ala Asp Ala Ile Ile Asp His Ser Leu Tyr Val Ala
1025 1030 1035

Asn Ser Lys Ser Ser Gly Lys Asp Tyr Gln Ala Lys Tyr Gly Gly
1040 1045 1050

Glu Phe Leu Ala Glu Leu Lys Ala Lys Tyr Pro Glu Met Phe Lys
1055 1060 1065

Val Asn Met Ile Ser Thr Gly Lys Pro Ile Asp Asp Ser Val Lys
1070 1075 1080

Leu Lys Gln Trp Lys Ala Glu Tyr Phe Asn Gly Thr Asn Val Leu
1085 1090 1095

Glu Arg Gly Val Gly Tyr Val Leu Ser Asp Glu Ala Thr Gly Lys
1100 1105 1110

Tyr Phe Thr Val Thr Lys Glu Gly Asn Phe Ile Pro Leu Gln Leu
1115 1120 1125

Thr Gly Lys Glu Lys Val Ile Thr Gly Phe Ser Ser Asp Gly Lys
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1130		1135		1140	
Gly Ile Thr Tyr Phe Gly Thr Ser Gly Thr Gln Ala Lys Ser Ala	1145	1150	1155		
Phe Val Thr Phe Asn Gly Asn Thr Tyr Tyr Phe Asp Ala Arg Gly	1160	1165	1170		
His Met Val Thr Asn Ser Glu Tyr Ser Pro Asn Gly Lys Asp Val	1175	1180	1185		
Tyr Arg Phe Leu Pro Asn Gly Ile Met Leu Ser Asn Ala Phe Tyr	1190	1195	1200		
Ile Asp Ala Asn Gly Asn Thr Tyr Leu Tyr Asn Ser Lys Gly Gln	1205	1210	1215		
Met Tyr Lys Gly Gly Tyr Thr Lys Phe Asp Val Ser Glu Thr Asp	1220	1225	1230		
Lys Asp Gly Lys Glu Ser Lys Val Val Lys Phe Arg Tyr Phe Thr	1235	1240	1245		
Asn Glu Gly Val Met Ala Lys Gly Val Thr Val Ile Asp Gly Phe	1250	1255	1260		
Thr Gln Tyr Phe Gly Glu Asp Gly Phe Gln Ala Lys Asp Lys Leu	1265	1270	1275		
Val Thr Phe Lys Gly Lys Thr Tyr Tyr Phe Asp Ala His Thr Gly	1280	1285	1290		
Asn Gly Ile Lys Asp Thr Trp Arg Asn Ile Asn Gly Lys Trp Tyr	1295	1300	1305		
Tyr Phe Asp Ala Asn Gly Val Ala Ala Thr Gly Ala Gln Val Ile	1310	1315	1320		
Asn Gly Gln Lys Leu Tyr Phe Asn Glu Asp Gly Ser Gln Val Lys	1325	1330	1335		
Gly Gly Val Val Lys Asn Ala Asp Gly Thr Tyr Ser Lys Tyr Lys	1340	1345	1350		
Glu Gly Phe Gly Glu Leu Val Thr Asn Glu Phe Phe Thr Thr Asp	1355	1360	1365		

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Gly	Asn	Val	Trp	Tyr	Tyr	Ala	Gly	Ala	Asn	Gly	Lys	Thr	Val	Thr
1370						1375					1380			
Gly	Ala	Gln	Val	Ile	Asn	Gly	Gln	His	Leu	Tyr	Phe	Asn	Ala	Asp
1385						1390					1395			
Gly	Ser	Gln	Val	Lys	Gly	Gly	Val	Val	Lys	Asn	Ala	Asp	Gly	Thr
1400						1405					1410			
Tyr	Ser	Lys	Tyr	Asn	Ala	Ser	Thr	Gly	Glu	Arg	Leu	Thr	Asn	Glu
1415						1420					1425			
Phe	Phe	Thr	Thr	Gly	Asp	Asn	Asn	Trp	Tyr	Tyr	Ile	Gly	Ala	Asn
1430						1435					1440			
Gly	Lys	Ser	Val	Thr	Gly	Glu	Val	Lys	Ile	Gly	Asp	Asp	Thr	Tyr
1445						1450					1455			
Phe	Phe	Ala	Lys	Asp	Gly	Lys	Gln	Val	Lys	Gly	Gln	Thr	Val	Ser
1460						1465					1470			
Ala	Gly	Asn	Gly	Arg	Ile	Ser	Tyr	Tyr	Tyr	Gly	Asp	Ser	Gly	Lys
1475						1480					1485			
Arg	Ala	Val	Ser	Thr	Trp	Ile	Glu	Ile	Gln	Pro	Gly	Val	Tyr	Val
1490						1495					1500			
Tyr	Phe	Asp	Lys	Asn	Gly	Leu	Ala	Tyr	Pro	Pro	Arg	Val	Leu	Asn
1505						1510					1515			