

SEQUENCE LISTING

<110> NOXXON Pharma AG

<120> C5a binding nucleic acids and the use thereof

<130> N 10077 PCT

<150> EP 09004122.9

<151> March 23, 2009

<160> 189

<170> PatentIn version 3.3

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<213> Homo sapiens

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Thr Cys Glu Gln Arg Ala Ala Arg Ile Ser Leu Gly Pro Arg Cys Ile
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Lys Ala Phe Thr Glu Cys Cys Val Val Ala Ser Gln Leu Arg Ala Asn
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Ile Ser His Lys Asp Met Gln Leu Gly Arg
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Thr Cys Glu Gln Arg Val Ala Arg Val Thr Ile Gly Pro His Cys Ile
 35 40 45

Arg Ala Phe Asn Glu Cys Cys Thr Ile Ala Asp Lys Ile Arg Lys Glu
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Ser His His Lys Gly Met Leu Leu Gly Arg
 65 70

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 20 25 30

Thr Cys Glu Glu Arg Val Ala Arg Val Thr Ile Gly Pro Leu Cys Ile
 35 40 45

Arg Ala Phe Asn Glu Cys Cys Thr Ile Ala Asn Lys Ile Arg Lys Glu
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<400> 159
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<400> 168
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Val Val Lys Lys Cys Cys Tyr Asp Gly Ala Cys Val Asn Asn Asp Glu
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Thr Cys Glu Gln Arg Ala Ala Arg Ile Ser Leu Gly Pro Arg Cys Ile
 35 40 45

Lys Ala Phe Thr Glu Cys Cys Val Val Ala Ser Gln Leu Arg Ala Asn
 50 55 60

Ile Ser His Lys Asp Met Gln Leu Gly Arg Leu His Met Lys Thr Leu
 65 70 75 80

Leu Pro Val Ser Lys Pro Glu Ile Arg Ser Tyr Phe Pro Glu Ser Trp
 85 90 95

Leu Trp Glu Val His Leu Val Pro Arg Arg Lys Gln Leu Gln Phe Ala
 100 105 110

Leu Pro Asp Ser Leu Thr Thr Trp Glu Ile Gln Gly Ile Gly Ile Ser
 115 120 125

Asn Thr Gly Ile Cys Val Ala Asp Thr Val Lys Ala Lys Val Phe Lys
 130 135 140

Asp Val Phe Leu Glu Met Asn Ile Pro Tyr Ser Val Val Arg Gly Glu
 145 150 155 160

Gln Ile Gln Leu Lys Gly Thr Val Tyr Asn Tyr Arg Thr Ser Gly Met
 165 170 175

Gln Phe Cys Val Lys Met Ser Ala Val Glu Gly Ile Cys Thr Ser Glu
 180 185 190

Ser Pro Val Ile Asp His Gln Gly Thr Lys Ser Ser Lys Cys Val Arg
 195 200 205

Gln Lys Val Glu Gly Ser Ser Ser His Leu Val Thr Phe Thr Val Leu
 210 215 220

Pro Leu Glu Ile Gly Leu His Asn Ile Asn Phe Ser Leu Glu Thr Trp
 225 230 235 240

Phe Gly Lys Glu Ile Leu Val Lys Thr Leu Arg Val Val Pro Glu Gly
 245 250 255

Val Lys Arg Glu Ser Tyr Ser Gly Val Thr Leu Asp Pro Arg Gly Ile
 260 265 270

Tyr Gly Thr Ile Ser Arg Arg Lys Glu Phe Pro Tyr Arg Ile Pro Leu
 275 280 285

Asp Leu Val Pro Lys Thr Glu Ile Lys Arg Ile Leu Ser Val Lys Gly

290	295	300
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Asn Ile Leu Thr His Leu Pro Lys Gly Ser Ala Glu Ala Glu Leu Met 325 330 335		
Ser Val Val Pro Val Phe Tyr Val Phe His Tyr Leu Glu Thr Gly Asn 340 345 350		
His Trp Asn Ile Phe His Ser Asp Pro Leu Ile Glu Lys Gln Lys Leu 355 360 365		
Lys Lys Lys Leu Lys Glu Gly Met Leu Ser Ile Met Ser Tyr Arg Asn 370 375 380		
Ala Asp Tyr Ser Tyr Ser Val Trp Lys Gly Gly Ser Ala Ser Thr Trp 385 390 395 400		
Leu Thr Ala Phe Ala Leu Arg Val Leu Gly Gln Val Asn Lys Tyr Val 405 410 415		
Glu Gln Asn Gln Asn Ser Ile Cys Asn Ser Leu Leu Trp Leu Val Glu 420 425 430		
Asn Tyr Gln Leu Asp Asn Gly Ser Phe Lys Glu Asn Ser Gln Tyr Gln 435 440 445		
Pro Ile Lys Leu Gln Gly Thr Leu Pro Val Glu Ala Arg Glu Asn Ser 450 455 460		
Leu Tyr Leu Thr Ala Phe Thr Val Ile Gly Ile Arg Lys Ala Phe Asp 465 470 475 480		
Ile Cys Pro Leu Val Lys Ile Asp Thr Ala Leu Ile Lys Ala Asp Asn 485 490 495		
Phe Leu Leu Glu Asn Thr Leu Pro Ala Gln Ser Thr Phe Thr Leu Ala 500 505 510		
Ile Ser Ala Tyr Ala Leu Ser Leu Gly Asp Lys Thr His Pro Gln Phe 515 520 525		
Arg Ser Ile Val Ser Ala Leu Lys Arg Glu Ala Leu Val Lys Gly Asn 530 535 540		

Pro Pro Ile Tyr Arg Phe Trp Lys Asp Asn Leu Gln His Lys Asp Ser
 545 550 555 560

Ser Val Pro Asn Thr Gly Thr Ala Arg Met Val Glu Thr Thr Ala Tyr
 565 570 575

Ala Leu Leu Thr Ser Leu Asn Leu Lys Asp Ile Asn Tyr Val Asn Pro
 580 585 590

Val Ile Lys Trp Leu Ser Glu Glu Gln Arg Tyr Gly Gly Gly Phe Tyr
 595 600 605

Ser Thr Gln Asp Thr Ile Asn Ala Ile Glu Gly Leu Thr Glu Tyr Ser
 610 615 620

Leu Leu Val Lys Gln Leu Arg Leu Ser Met Asp Ile Asp Val Ser Tyr
 625 630 635 640

Lys His Lys Gly Ala Leu His Asn Tyr Lys Met Thr Asp Lys Asn Phe
 645 650 655

Leu Gly Arg Pro Val Glu Val Leu Leu Asn Asp Asp Leu Ile Val Ser
 660 665 670

Thr Gly Phe Gly Ser Gly Leu Ala Thr Val His Val Thr Thr Val Val
 675 680 685

His Lys Thr Ser Thr Ser Glu Glu Val Cys Ser Phe Tyr Leu Lys Ile
 690 695 700

Asp Thr Gln Asp Ile Glu Ala Ser His Tyr Arg Gly Tyr Gly Asn Ser
 705 710 715 720

Asp Tyr Lys Arg Ile Val Ala Cys Ala Ser Tyr Lys Pro Ser Arg Glu
 725 730 735

Glu Ser Ser Ser Gly Ser Ser His Ala Val Met Asp Ile Ser Leu Pro
 740 745 750

Thr Gly Ile Ser Ala Asn Glu Glu Asp Leu Lys Ala Leu Val Glu Gly
 755 760 765

Val Asp Gln Leu Phe Thr Asp Tyr Gln Ile Lys Asp Gly His Val Ile
 770 775 780

Leu Gln Leu Asn Ser Ile Pro Ser Ser Asp Phe Leu Cys Val Arg Phe
 785 790 795 800

Arg Ile Phe Glu Leu Phe Glu Val Gly Phe Leu Ser Pro Ala Thr Phe
805 810 815

Thr Val Tyr Glu Tyr His Arg Pro Asp Lys Gln Cys Thr Met Phe Tyr
820 825 830

Ser Thr Ser Asn Ile Lys Ile Gln Lys Val Cys Glu Gly Ala Ala Cys
835 840 845

Lys Cys Val Glu Ala Asp Cys Gly Gln Met Gln Glu Glu Leu Asp Leu
850 855 860

Thr Ile Ser Ala Glu Thr Arg Lys Gln Thr Ala Cys Lys Pro Glu Ile
865 870 875 880

Ala Tyr Ala Tyr Lys Val Ser Ile Thr Ser Ile Thr Val Glu Asn Val
885 890 895

Phe Val Lys Tyr Lys Ala Thr Leu Leu Asp Ile Tyr Lys Thr Gly Glu
900 905 910

Ala Val Ala Glu Lys Asp Ser Glu Ile Thr Phe Ile Lys Lys Val Thr
915 920 925

Cys Thr Asn Ala Glu Leu Val Lys Gly Arg Gln Tyr Leu Ile Met Gly
930 935 940

Lys Glu Ala Leu Gln Ile Lys Tyr Asn Phe Ser Phe Arg Tyr Ile Tyr
945 950 955 960

Pro Leu Asp Ser Leu Thr Trp Ile Glu Tyr Trp Pro Arg Asp Thr Thr
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Asp Ile Phe Leu Asn Gly Cys
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Asp Ala Thr Ile Ser Ile Lys Ser Tyr Pro Asp Lys Lys Phe Ser Tyr
 35 40 45

Ser Ser Gly His Val His Leu Ser Ser Glu Asn Lys Phe Gln Asn Ser
 50 55 60

Ala Ile Leu Thr Ile Gln Pro Lys Gln Leu Pro Gly Gly Gln Asn Pro
 65 70 75 80

Val Ser Tyr Val Tyr Leu Glu Val Val Ser Lys His Phe Ser Lys Ser
 85 90 95

Lys Arg Met Pro Ile Thr Tyr Asp Asn Gly Phe Leu Phe Ile His Thr
 100 105 110

Asp Lys Pro Val Tyr Thr Pro Asp Gln Ser Val Lys Val Arg Val Tyr
 115 120 125

Ser Leu Asn Asp Asp Leu Lys Pro Ala Lys Arg Glu Thr Val Leu Thr
 130 135 140

Phe Ile Asp Pro Glu Gly Ser Glu Val Asp Met Val Glu Glu Ile Asp
 145 150 155 160

His Ile Gly Ile Ile Ser Phe Pro Asp Phe Lys Ile Pro Ser Asn Pro
 165 170 175

Arg Tyr Gly Met Trp Thr Ile Lys Ala Lys Tyr Lys Glu Asp Phe Ser
 180 185 190

Thr Thr Gly Thr Ala Tyr Phe Glu Val Lys Glu Tyr Val Leu Pro His
 195 200 205

Phe Ser Val Ser Ile Glu Pro Glu Tyr Asn Phe Ile Gly Tyr Lys Asn
 210 215 220

Phe Lys Asn Phe Glu Ile Thr Ile Lys Ala Arg Tyr Phe Tyr Asn Lys
 225 230 235 240

Val Val Thr Glu Ala Asp Val Tyr Ile Thr Phe Gly Ile Arg Glu Asp
 245 250 255

Leu Lys Asp Asp Gln Lys Glu Met Met Gln Thr Ala Met Gln Asn Thr
 260 265 270

Met Leu Ile Asn Gly Ile Ala Gln Val Thr Phe Asp Ser Glu Thr Ala
 275 280 285

Val Lys Glu Leu Ser Tyr Tyr Ser Leu Glu Asp Leu Asn Asn Lys Tyr
 290 295 300

Leu Tyr Ile Ala Val Thr Val Ile Glu Ser Thr Gly Gly Phe Ser Glu
 305 310 315 320

Glu Ala Glu Ile Pro Gly Ile Lys Tyr Val Leu Ser Pro Tyr Lys Leu
 325 330 335

Asn Leu Val Ala Thr Pro Leu Phe Leu Lys Pro Gly Ile Pro Tyr Pro
 340 345 350

Ile Lys Val Gln Val Lys Asp Ser Leu Asp Gln Leu Val Gly Gly Val
 355 360 365

Pro Val Ile Leu Asn Ala Gln Thr Ile Asp Val Asn Gln Glu Thr Ser
 370 375 380

Asp Leu Asp Pro Ser Lys Ser Val Thr Arg Val Asp Asp Gly Val Ala
 385 390 395 400

Ser Phe Val Leu Asn Leu Pro Ser Gly Val Thr Val Leu Glu Phe Asn
 405 410 415

Val Lys Thr Asp Ala Pro Asp Leu Pro Glu Glu Asn Gln Ala Arg Glu
 420 425 430

Gly Tyr Arg Ala Ile Ala Tyr Ser Ser Leu Ser Gln Ser Tyr Leu Tyr
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Ile Asp Trp Thr Asp Asn His Lys Ala Leu Leu Val Gly Glu His Leu
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Asn Ile Ile Val Thr Pro Lys Ser Pro Tyr Ile Asp Lys Ile Thr His
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Tyr Asn Tyr Leu Ile Leu Ser Lys Gly Lys Ile Ile His Phe Gly Thr
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Arg Glu Lys Phe Ser Asp Ala Ser Tyr Gln Ser Ile Asn Ile Pro Val
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Thr Gln Asn Met Val Pro Ser Ser Arg Leu Leu Val Tyr Tyr Ile Val

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Ile 545	Glu	Glu	Lys	Cys	Gly 550	Asn	Gln	Leu	Gln	Val 555	His	Leu	Ser	Pro	Asp 560			
Ala	Asp	Ala	Tyr	Ser 565	Pro	Gly	Gln	Thr	Val 570	Ser	Leu	Asn	Met	Ala 575	Thr			
Gly	Met	Asp	Ser 580	Trp	Val	Ala	Leu 585	Ala	Ala	Val	Asp	Ser	Ala 590	Val	Tyr			
Gly	Val	Gln 595	Arg	Gly	Ala	Lys 600	Lys	Pro	Leu	Glu	Arg	Val 605	Phe	Gln	Phe			
Leu 610	Glu	Lys	Ser	Asp	Leu	Gly 615	Cys	Gly	Ala	Gly	Gly 620	Gly	Leu	Asn	Asn			
Ala 625	Asn	Val	Phe	His	Leu 630	Ala	Gly	Leu	Thr	Phe 635	Leu	Thr	Asn	Ala	Asn 640			
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