

SEQUENCE LISTING

<110> Istituto Superiore di Sanità
 <120> Antisense RNA Targeting CXCR4
 <130> WPP97754
 <150> GB 0802754.2
 <151> 2008-02-14
 <160> 25
 <170> PatentIn version 3.3
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 gaaggatata atgaagtcac tatgggaaaa gatggggagg agagttgtag gattctacat 180
 taattctctt gtgcccttag cccactactt cagaatttcc tgaagaaagc aagcctgaat 240
 tggtttttta aattgcttta aaaatttttt ttaactgggt taatgcttgc tgaattggaa 300
 gtga atg tcc att cct ttg cct ctt ttg cag ata tac act tca gat aac 349
 Met Ser Ile Pro Leu Pro Leu Leu Gln Ile Tyr Thr Ser Asp Asn
 1 5 10 15

tac acc gag gaa atg ggc tca ggg gac tat gac tcc atg aag gaa ccc	397
Tyr Thr Glu Glu Met Gly Ser Gly Asp Tyr Asp Ser Met Lys Glu Pro	
20 25 30	
tgt ttc cgt gaa gaa aat gct aat ttc aat aaa atc ttc ctg ccc acc	445
Cys Phe Arg Glu Glu Asn Ala Asn Phe Asn Lys Ile Phe Leu Pro Thr	
35 40 45	
atc tac tcc atc atc ttc tta act ggc att gtg ggc aat gga ttg gtc	493
Ile Tyr Ser Ile Ile Phe Leu Thr Gly Ile Val Gly Asn Gly Leu Val	
50 55 60	
atc ctg gtc atg ggt tac cag aag aaa ctg aga agc atg acg gac aag	541
Ile Leu Val Met Gly Tyr Gln Lys Lys Leu Arg Ser Met Thr Asp Lys	
65 70 75	
tac agg ctg cac ctg tca gtg gcc gac ctc ctc ttt gtc atc acg ctt	589
Tyr Arg Leu His Leu Ser Val Ala Asp Leu Phe Val Ile Thr Leu	
80 85 90 95	
ccc ttc tgg gca gtt gat gcc gtg gca aac tgg tac ttt ggg aac ttc	637
Pro Phe Trp Ala Val Asp Ala Val Ala Asn Trp Tyr Phe Gly Asn Phe	
100 105 110	
cta tgc aag gca gtc cat gtc atc tac aca gtc aac ctc tac agc agt	685
Leu Cys Lys Ala Val His Val Ile Tyr Thr Val Asn Leu Tyr Ser Ser	
115 120 125	
gtc ctc atc ctg gcc ttc atc agt ctg gac cgc tac ctg gcc atc gtc	733
Val Leu Ile Leu Ala Phe Ile Ser Leu Asp Arg Tyr Leu Ala Ile Val	
130 135 140	
cac gcc acc aac agt cag agg cca agg aag ctg ttg gct gaa aag gtg	781
His Ala Thr Asn Ser Gln Arg Pro Arg Lys Leu Leu Ala Glu Lys Val	
145 150 155	
gtc tat gtt ggc gtc tgg atc cct gcc ctc ctg ctg act att ccc gac	829
Val Tyr Val Gly Val Trp Ile Pro Ala Leu Leu Leu Thr Ile Pro Asp	
160 165 170 175	
ttc atc ttt gcc aac gtc agt gag gca gat gac aga tat atc tgt gac	877
Phe Ile Phe Ala Asn Val Ser Glu Ala Asp Asp Arg Tyr Ile Cys Asp	
180 185 190	
cgc ttc tac ccc aat gac ttg tgg gtg gtt gtg ttc cag ttt cag cac	925
Arg Phe Tyr Pro Asn Asp Leu Trp Val Val Phe Gln Phe Gln His	
195 200 205	
atc atg gtt ggc ctt atc ctg cct ggt att gtc atc ctg tcc tgc tat	973
Ile Met Val Gly Leu Ile Leu Pro Gly Ile Val Ile Leu Ser Cys Tyr	
210 215 220	
tgc att atc atc tcc aag ctg tca cac tcc aag ggc cac cag aag cgc	1021
Cys Ile Ile Ile Ser Lys Leu Ser His Ser Lys Gly His Gln Lys Arg	
225 230 235	
aag gcc ctc aag acc aca gtc atc ctc atc ctg gct ttc ttc gcc tgt	1069
Lys Ala Leu Lys Thr Thr Val Ile Leu Ile Leu Ala Phe Phe Ala Cys	
240 245 250 255	
tgg ctg cct tac tac att ggg atc agc atc gac tcc ttc atc ctc ctg	1117
Trp Leu Pro Tyr Tyr Ile Gly Ile Ser Ile Asp Ser Phe Ile Leu Leu	

260	265	270	
gaa atc atc aag caa ggg tgt gag ttt gag aac act gtg cac aag tgg			1165
Glu Ile Ile Lys Gln Gly Cys Glu Phe Glu Asn Thr Val His Lys Trp			
275	280	285	
att tcc atc acc gag gcc cta gct ttc ttc cac tgt tgt ctg aac ccc			1213
Ile Ser Ile Thr Glu Ala Leu Ala Phe Phe His Cys Cys Leu Asn Pro			
290	295	300	
atc ctc tat gct ttc ctt gga gcc aaa ttt aaa acc tct gcc cag cac			1261
Ile Leu Tyr Ala Phe Leu Gly Ala Lys Phe Lys Thr Ser Ala Gln His			
305	310	315	
gca ctc acc tct gtg agc aga ggg tcc agc ctc aag atc ctc tcc aaa			1309
Ala Leu Thr Ser Val Ser Arg Gly Ser Ser Leu Lys Ile Leu Ser Lys			
320	325	330	335
gga aag cga ggt gga cat tca tct gtt tcc act gag tct gag tct tca			1357
Gly Lys Arg Gly Gly His Ser Ser Val Ser Thr Glu Ser Glu Ser Ser			
340	345	350	
agt ttt cac tcc agc taa cacagatgta aaagactttt ttttatacga			1405
Ser Phe His Ser Ser			
355			
taaataactt ttttttaagt tacacatttt tcagatataa aagactgacc aatattgtac			1465
agtttttatt gcttgttgga tttttgtcct gtgtttcctt agtttttgtg aagttaaatt			1525
gacttattta tataaaatttt ttttgtttca tattgatgtg tgtctaggca ggacctgtgg			1585
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gttaaactta aaaaaaaaaa aaaaaaa			1912

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 <212> PRT
 <213> Homo sapiens

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Phe Arg Glu Glu Asn Ala Asn Phe Asn Lys Ile Phe Leu Pro Thr Ile
35 40 45

Tyr Ser Ile Ile Phe Leu Thr Gly Ile Val Gly Asn Gly Leu Val Ile
 50 55 60

Leu Val Met Gly Tyr Gln Lys Lys Leu Arg Ser Met Thr Asp Lys Tyr
 65 70 75 80

Arg Leu His Leu Ser Val Ala Asp Leu Leu Phe Val Ile Thr Leu Pro
 85 90 95

Phe Trp Ala Val Asp Ala Val Ala Asn Trp Tyr Phe Gly Asn Phe Leu
 100 105 110

Cys Lys Ala Val His Val Ile Tyr Thr Val Asn Leu Tyr Ser Ser Val
 115 120 125

Leu Ile Leu Ala Phe Ile Ser Leu Asp Arg Tyr Leu Ala Ile Val His
 130 135 140

Ala Thr Asn Ser Gln Arg Pro Arg Lys Leu Leu Ala Glu Lys Val Val
 145 150 155 160

Tyr Val Gly Val Trp Ile Pro Ala Leu Leu Leu Thr Ile Pro Asp Phe
 165 170 175

Ile Phe Ala Asn Val Ser Glu Ala Asp Asp Arg Tyr Ile Cys Asp Arg
 180 185 190

Phe Tyr Pro Asn Asp Leu Trp Val Val Val Phe Gln Phe Gln His Ile
 195 200 205

Met Val Gly Leu Ile Leu Pro Gly Ile Val Ile Leu Ser Cys Tyr Cys
 210 215 220

Ile Ile Ile Ser Lys Leu Ser His Ser Lys Gly His Gln Lys Arg Lys
 225 230 235 240

Ala Leu Lys Thr Thr Val Ile Leu Ile Leu Ala Phe Phe Ala Cys Trp
 245 250 255

Leu Pro Tyr Tyr Ile Gly Ile Ser Ile Asp Ser Phe Ile Leu Leu Glu
 260 265 270

Ile Ile Lys Gln Gly Cys Glu Phe Glu Asn Thr Val His Lys Trp Ile
 275 280 285

Ser Ile Thr Glu Ala Leu Ala Phe Phe His Cys Cys Leu Asn Pro Ile
 290 295 300

Leu Tyr Ala Phe Leu Gly Ala Lys Phe Lys Thr Ser Ala Gln His Ala
 305 310 315 320

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Phe His Ser Ser
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 aaaaatgggc atgatccagc tgcagaacct tagccacccc acggggctac tgtgcaaggc 180
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 ccgcaatagt caacactata ctttggactt cctctcgcca aagaccttcc agcagattct 360
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caacggcgcc tcgccctacc agtgcacat ctgcacagag tactgcccc gcctctcctc	2040
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gaagacgtac ctctacctgt gctatgtgtg aaggagggcc cgcgcggtg gagccgagcg	2160
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aaaagaaaaa aaaaaacaga aggaaaagg	2249

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 <213> Homo sapiens

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gtgtttcttt agtttttgtg aagtttaatt gacttattta tataaatttt ttttgtttca	180
tattgatgtg tgtctaggca ggacctgtgg ccaagttctt agttgctgta tgtctcgtgg	240
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aaatgatccc cagctgttta tgcatagata atctctccat tcccgtggaa cgtttttcct	360
gtttttaaga cgtgattttg ctgtagaaga tggcacttat aaccaaagcc caaagtggta	420
tagaaatgct ggtttttcag ttttcaggag tgggttgatt tcagcaccta cagtgtacag	480
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 <212> DNA
 <213> artificial

 <220>
 <223> Mutated PLZF binding site (GTAC mutated to CGGC)

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 <211> 22
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 <213> artificial

 <220>
 <223> PCR Primer

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 <210> 10
 <211> 25
 <212> DNA
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 <220>
 <223> PCT Primer

 <400> 10
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 <210> 11
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 <220>
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 <400> 11
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<400> 23

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20

<210> 24

<211> 20

<212> DNA

<213> Artificial

<220>

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<400> 24

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20

<210> 25

<211> 21

<212> DNA

<213> Homo sapiens

<400> 25

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21