SEQUENCE LISTING

<110> Albert Einstein College of Medicine of Yeshiva University
Jacobs, William R
Sweeney, Kari
Dao, Dee
Porcelli, Steven A
Chan, John
Hsu, Tsungda

<120> Mycobacterial Mutants Inducing IL-12

<130> 96700-1355

<140> PCT/US08/003204
<141> 2008-03-10

<150> US 60/918,997
<151> 2007-03-19

<150> US 60/930,839
<151> 2007-05-17

<160> 12

<170> PatentIn version 3.5

<210> 1
<211> 906
<212> DNA
<213> Mycobacterium tuberculosis

<400> 1
atgacgagaa tggccgagaa accgattagc ccaaccaaga cacggacacg cttcgaagac 60

atccaagcgc actacgacgt ctccgatgat ttcttcgccc tgttccagga cccgacccga 120

acttacagct gtgcctactt cgagccaccg gagctcacgc tcgaagaagc ccaatacgcc 180

aaggtcgacc tcaacctgga caagctggac ctcaagccgg gcatgacgct gctggacatt 240

gggtgcggtt ggggcaccac catgaggcgc gccgtcgagc ggttcgacgt taacgtcatc 300

ggcctgacgt tgtccaagaa ccagctcgcc cgctgcgagc aagtgctggc ttcgatcgac 360

accaaccgct cacgtcaagt gctgctgcaa ggctgggagg atttcgccga acccgtcgac 420

cggattgtgt cgatcgaagc cttcgagcac ttcgggcacg agaactacga cgacttcttc 480

aagcggtgtt tcaacatcat gcccgccgac ggccggatga ccgtccagag cagcgtcagc 540

taccacccct acgagatggc ggcccgcggt aagaagctga gcttcgagac ggcgcgtttc 600

atcaagttca tcgtcaccga gatatttccc ggcggccgcc tgccgtccac cgagatgatg 660

gtcgaacacg gcgagaaggc cggtttcacc gtcccggagc cgctctcgtt gcgcccgcat 720

tacatcaaga cgctgcggat ctgggggggac acgctgcagt ccaataagga caaggccatc 780

gaggtcacct ccgaagaggt ctacaaccgc tacatgaagt atttgcgtgg ctgcgagcac 840

tacttcaccg acgagatgct cgactgcagc ctggtgacct acctcaagcc gggtgccgcg 900

gcctaa 906

<210> 2
<211> 301
<212> PRT
<213> Mycobacterium tuberculosis

<400> 2

Met Thr Arg Met Ala Glu Lys Pro Ile Ser Pro Thr Lys Thr Arg Thr
1 5 10 15

Arg Phe Glu Asp Ile Gln Ala His Tyr Asp Val Ser Asp Asp Phe Phe
20 25 30

Ala Leu Phe Gln Asp Pro Thr Arg Thr Tyr Ser Cys Ala Tyr Phe Glu
35 40 45

Pro Pro Glu Leu Thr Leu Glu Glu Ala Gln Tyr Ala Lys Val Asp Leu
50 55 60

Asn Leu Asp Lys Leu Asp Leu Lys Pro Gly Met Thr Leu Leu Asp Ile
65 70 75 80

Gly Cys Gly Trp Gly Thr Thr Met Arg Arg Ala Val Glu Arg Phe Asp
85 90 95

Val Asn Val Ile Gly Leu Thr Leu Ser Lys Asn Gln Leu Ala Arg Cys
100 105 110

Glu Gln Val Leu Ala Ser Ile Asp Thr Asn Arg Ser Arg Gln Val Leu
115 120 125

Leu Gln Gly Trp Glu Asp Phe Ala Glu Pro Val Asp Arg Ile Val Ser
130 135 140

Ile Glu Ala Phe Glu His Phe Gly His Glu Asn Tyr Asp Asp Phe Phe
145 150 155 160

Lys Arg Cys Phe Asn Ile Met Pro Ala Asp Gly Arg Met Thr Val Gln
165 170 175

Ser Ser Val Ser Tyr His Pro Tyr Glu Met Ala Ala Arg Gly Lys Lys
180 185 190

Leu Ser Phe Glu Thr Ala Arg Phe Ile Lys Phe Ile Val Thr Glu Ile
195 200 205

Phe Pro Gly Gly Arg Leu Pro Ser Thr Glu Met Met Val Glu His Gly
210 215 220

Glu Lys Ala Gly Phe Thr Val Pro Glu Pro Leu Ser Leu Arg Pro His
225 230 235 240

Tyr Ile Lys Thr Leu Arg Ile Trp Gly Asp Thr Leu Gln Ser Asn Lys
245 250 255

Asp Lys Ala Ile Glu Val Thr Ser Glu Glu Val Tyr Asn Arg Tyr Met
260 265 270

Lys Tyr Leu Arg Gly Cys Glu His Tyr Phe Thr Asp Glu Met Leu Asp
275 280 285

Cys Ser Leu Val Thr Tyr Leu Lys Pro Gly Ala Ala Ala
290 295 300

<210> 3
<211> 21
<212> DNA
<213> artificial sequence

<220>
<223> upstream primer for amplification of positions -800 to +55 relative to the transcription start of IL-12p40 promoter

<400> 3
acaggattgc acacctcttt g 21

<210> 4
<211> 16
<212> DNA
<213> artificial sequence

<220>
<223> downstream primer for amplification of positions -800 to +55 relative to transcription start of IL-12p40 promoter

<400> 4
ttgctttgct gcgagc 16

<210> 5
<211> 44
<212> DNA
<213> artificial sequence

<220>
<223> 0643cRL primer directed to M. tuberculosis gene

<400> 5
ttttttttcc atagattggt cactcgatca ccggcttgca cgta 44

<210> 6
<211> 44
<212> DNA
<213> artificial sequence

<220>
<223> 0643cRR primer directed to M. tuberculosis gene

<400> 6
ttttttttcc atcttttggg gagacgtcgt agtgcgcttg gatg 44

<210> 7
<211> 43
<212> DNA
<213> artificial sequence

<220>
<223> 0643cLL primer directed to M. tuberculosis gene

<400> 7
tttttttacc ataaattggg gaacagtcgg cgaagacggg ttt 43

<210> 8
<211> 44
<212> DNA
<213> artificial sequence

<220>
<223> 0643cLR primer directed to M. tuberculosis gene

<400> 8
ttttttttcc atttcttggt gaagttggcc cagtcgctca gcag 44

<210> 9
<211> 41
<212> DNA
<213> artificial sequence

<220>
<223> 0642cRL primer directed to M. tuberculosis gene

<400> 9

ttttttttcc atagattggt tcgagacggc gcgtttcatc a 41

<210> 10
<211> 41
<212> DNA
<213> artificial sequence

<220>
<223> primer directed to M. tuberculosis gene

<400> 10
ttttttttcc atcttttggc gacccgcgta aggcagacca g 41

<210> 11
<211> 45
<212> DNA
<213> artificial sequence

<220>
<223> primer directed to M. tuberculosis gene

<400> 11
tttttttacc ataaattgga gcactcgatc accggcttgc acgta 45

<210> 12
<211> 44
<212> DNA
<213> artificial sequence

<220>
<223> 0642cLR primer directed to M. tuberculosis gene

<400> 12
ttttttttcc atttcatggt ccaaccgcac ccaatgtcca gcag 44