

SEQUENCE LISTING

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Singapore Health Services Pte Ltd
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<120> METHODS OF MODULATING WARS2

<130> 4459.1090001

<150> 61/952,510

<151> 2014-03-13

<160> 55

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 329

<212> PRT

<213> Rattus

<220>

<221> VARIANT

<222> 270

<223> Xaa = A or R

<400> 1

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Lys Glu Ser Gly Glu Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile
1      5      10      15
Pro His Leu Gly Asn Tyr Leu Gly Ala Ile Glu Ser Trp Val Lys Leu
20     25     30
Gln Glu Glu Tyr Asp Thr Val Ile Tyr Ser Ile Val Asp Leu His Ser
35     40     45
Ile Thr Val Pro Gln Asp Pro Gly Ile Leu Gln Gln Ser Ile Leu Asp
50     55     60
Met Thr Ala Val Leu Leu Ala Cys Gly Ile Asp Pro Glu Arg Ser Ile
65     70     75     80
Leu Phe Gln Gln Ser Gln Val Ser Glu His Thr Gln Leu Ser Trp Ile
85     90     95
Leu Thr Cys Met Val Arg Leu Pro Arg Leu Gln His Leu His Gln Trp
100    105    110
Lys Ala Lys Ala Ala Arg Gln Lys His Asp Gly Thr Val Gly Leu Leu
115    120    125
Thr Tyr Pro Val Leu Gln Ala Ala Asp Ile Leu Cys Tyr Lys Ser Thr
130    135    140
His Val Pro Val Gly Glu Asp Gln Val Gln His Met Glu Leu Val Gln
145    150    155    160
Asp Leu Ala Arg Ser Phe Asn Gln Lys Tyr Gly Glu Leu Phe Pro Leu
165    170    175
Pro Arg Ser Ile Leu Thr Ser Met Lys Lys Val Lys Ser Leu Arg Asp
180    185    190
Pro Ser Ala Lys Met Ser Lys Ser Asp Pro Asp Lys Leu Ala Thr Val
195    200    205
Gln Ile Thr Asp Ser Pro Glu Glu Ile Val Arg Lys Phe Arg Lys Ala
210    215    220
Val Thr Asp Phe Thr Ser Glu Val Thr Tyr Glu Pro Asp Ser Arg Pro
225    230    235    240
Gly Val Ser Asn Met Val Ala Ile His Ala Ala Val Ser Gly Leu Ser
245    250    255
Val Glu Glu Val Val Arg Asn Ser Ala Gly Val Asp Thr Xaa Tyr Lys
260    265    270

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Leu Leu Val Ala Asp Ala Val Ile Glu Lys Phe Ala Pro Ile Arg Ser
 275 280 285
 Glu Ile Glu Lys Leu Lys Met Asp Lys Asp His Leu Arg Lys Val Leu
 290 295 300
 Leu Val Gly Ser Ala Lys Ala Lys Glu Leu Ala Ser Pro Val Phe Glu
 305 310 315 320
 Glu Val Lys Lys Leu Val Gly Ile Leu
 325

<210> 2
 <211> 355
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 60
 <223> Xaa = V or N

<220>
 <221> VARIANT
 <222> 119
 <223> Xaa = H or T

<220>
 <221> VARIANT
 <222> 178
 <223> Xaa = E or D

<220>
 <221> VARIANT
 <222> 237
 <223> Xaa = I or T

<220>
 <221> VARIANT
 <222> 296
 <223> Xaa = A or R

<400> 2
 Met Ala Leu Phe Ser Val Arg Lys Ala Arg Glu Cys Trp Arg Phe Ile
 1 5 10 15
 Arg Ala Leu His Lys Gly Pro Ala Ala Thr Leu Ala Pro Gln Lys Glu
 20 25 30
 Ser Gly Glu Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Leu His
 35 40 45
 Leu Gly Asn Tyr Leu Gly Ala Ile Glu Ser Trp Xaa Leu Gln Glu Glu
 50 55 60
 Tyr Asp Thr Val Ile Tyr Ser Ile Val Asp Leu His Ser Ile Thr Val
 65 70 75 80
 Pro Gln Asp Pro Thr Val Leu Gln Gln Ser Ile Leu Asp Met Thr Ala
 85 90 95
 Val Leu Leu Ala Cys Gly Ile Asn Pro Glu Lys Ser Ile Leu Phe Gln
 100 105 110
 Gln Ser Lys Val Ser Glu Xaa Gln Leu Ser Trp Ile Leu Thr Cys Met
 115 120 125
 Val Arg Leu Pro Arg Leu Gln His Leu His Gln Trp Lys Ala Lys Ala
 130 135 140
 Ala Lys Gln Lys His Asp Gly Thr Val Gly Leu Leu Thr Tyr Pro Val
 145 150 155 160
 Leu Gln Ala Ala Asp Ile Leu Cys Tyr Lys Ser Thr His Val Pro Val
 165 170 175
 Gly Xaa Gln Val Gln His Met Glu Leu Val Gln Asp Leu Ala Arg Ser

[illegible]

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<210> 3
<211> 355
<212> PRT
<213> Homo sapien
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<220>
<221> VARIANT
<222> 60
<223> Xaa = V or R
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<220>
<221> VARIANT
<222> 119
<223> Xaa = H or T
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<220>
<221> VARIANT
<222> 178
<223> Xaa = E or D
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<220>
<221> VARIANT
<222> 237
<223> Xaa = I or T
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<220>  
<221> VARIANT  
<222> 296  
<223> Xaa = A or R
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<400> 3
Met Ala Leu His Ser Met Arg Lys Ala Arg Glu Arg Trp Ser Phe Ile
1 5 10 15
Arg Ala Leu His Lys Gly Ser Ala Ala Ala Pro Ala Leu Gln Lys Asp
20 25 30
Ser Lys Lys Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Leu His
35 40 45
Leu Gly Asn Tyr Leu Gly Ala Ile Glu Ser Trp Xaa Leu Gln Asp Glu
50 55 60

Tyr Asp Ser Val Leu Tyr Ser Ile Val Asp Leu His Ser Ile Thr Val
 65 70 75 80
 Pro Gln Asp Pro Ala Val Leu Arg Gln Ser Ile Leu Asp Met Thr Ala
 85 90 95
 Val Leu Leu Ala Cys Gly Ile Asn Pro Glu Lys Ser Ile Leu Phe Gln
 100 105 110
 Gln Ser Gln Val Ser Glu Xaa Gln Leu Ser Trp Ile Leu Ser Cys Met
 115 120 125
 Val Arg Leu Pro Arg Leu Gln His Leu His Gln Trp Lys Ala Lys Thr
 130 135 140
 Thr Lys Gln Lys His Asp Gly Thr Val Gly Leu Leu Thr Tyr Pro Val
 145 150 155 160
 Leu Gln Ala Ala Asp Ile Leu Leu Tyr Lys Ser Thr His Val Pro Val
 165 170 175
 Gly Xaa Gln Val Gln His Met Glu Leu Val Gln Asp Leu Ala Gln Gly
 180 185 190
 Phe Asn Lys Lys Tyr Gly Glu Phe Phe Pro Val Pro Glu Ser Ile Leu
 195 200 205
 Thr Ser Met Lys Lys Val Lys Ser Leu Arg Asp Pro Ser Ala Lys Met
 210 215 220
 Ser Lys Ser Asp Pro Asp Lys Leu Ala Thr Val Arg Xaa Asp Ser Pro
 225 230 235 240
 Glu Glu Ile Val Gln Lys Phe Arg Lys Ala Val Thr Asp Phe Thr Ser
 245 250 255
 Glu Val Thr Tyr Asp Pro Ala Gly Arg Ala Gly Val Ser Asn Ile Val
 260 265 270
 Ala Val His Ala Ala Val Thr Gly Leu Ser Val Glu Glu Val Val Arg
 275 280 285
 Arg Ser Ala Gly Met Asn Thr Xaa Tyr Lys Leu Ala Val Ala Asp Ala
 290 295 300
 Val Ile Glu Lys Phe Ala Pro Ile Lys Arg Glu Ile Glu Lys Leu Lys
 305 310 315 320
 Leu Asp Lys Asp His Leu Glu Lys Val Leu Gln Ile Gly Ser Ala Lys
 325 330 335
 Ala Lys Glu Leu Ala Tyr Thr Val Cys Gln Glu Val Lys Lys Leu Val
 340 345 350
 Gly Phe Leu
 355

<210> 4
 <211> 1080
 <212> DNA
 <213> Homo sapien

<400> 4
 atggcgctgc actcaatgcg gaaagcgcgt gagcgctgga gcttcatccg ggcacttcat 60
 aagggatccg cagctgctcc cgctctccag aaagacagca agaagcgagt attttccggc 120
 attcaacctc caggaatcct ccacctgggc aattacctgg gagccattga gagctgggtg 180
 aggttacagg atgaatatga ctctgtatta tacagcattg ttgacctcca ctccattact 240
 gtccccaag acccagctgt ctttcggcag agcatcctgg acatgactgc tgttcttctt 300
 gcctgtggca taaaccggga aaaaagcatt cttttccaac aatctcaggt gtctgaacac 360
 acacaattaa gttggatcct ttcctgcatg gtcagactac ctcgattaca acatttacat 420
 cagtggaagg caaagactac caagcagaag cactgatggc cggtgggcct gctcacatac 480
 ccagtactcc aggcagccga cattctgttg tacaagtcca cacacgttcc tgttggggag 540
 gatcaagtc agcacatgga actagttcag gatctagcac aaggtttcaa caagaagtat 600
 ggggagttct ttccagtgc cgagtccatt ctacatcca tgaagaagg aaatcccta 660
 cgtgatcctt ctgcaaaat gtcgaaatca gacctgaca aactggccac cgtccgaata 720
 acagacagcc cagaggagat agtcagaaa ttccgcaagg ctgtgacaga cttcacctcg 780
 gaggtcacct atgaccggc tggccgcgct ggcgtgtcca acatagtggc ggtgcatgcc 840
 gcggtgacgg ggctctccgt ggaggaagt gtgcgccga gcgcgggcat gaacactgct 900
 cgttacaagc tggccgtggc agatgctgt ttagagaagt ttgcccacaa taagcgtgaa 960
 attgaaaaac tgaagctgga caaggaccat tttagagaag ttttacaat tggatcagca 1020
 aaagccaaag aattagcata cactgtgtgc caggaggtga agaaattggt gggttttcta 1080

<210> 5
 <211> 43
 <212> PRT
 <213> Rattus

<400> 5
 Glu Ser Gly Glu Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Pro
 1 5 10 15
 His Leu Gly Asn Tyr Phe Gly Ala Ile Glu Ser Trp Val Lys Leu Gln
 20 25 30
 Glu Glu Tyr Asp Thr Val Ile Tyr Ser Ile Val
 35 40

<210> 6
 <211> 43
 <212> PRT
 <213> Rattus

<400> 6
 Glu Ser Gly Glu Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Pro
 1 5 10 15
 His Leu Gly Asn Tyr Phe Gly Ala Ile Glu Ser Trp Val Lys Leu Gln
 20 25 30
 Glu Glu Tyr Asp Thr Val Ile Tyr Ser Ile Val
 35 40

<210> 7
 <211> 43
 <212> PRT
 <213> Rattus

<400> 7
 Glu Ser Gly Glu Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Pro
 1 5 10 15
 His Leu Gly Asn Tyr Phe Gly Ala Ile Glu Ser Trp Val Lys Leu Gln
 20 25 30
 Glu Glu Tyr Asp Thr Val Ile Tyr Ser Ile Val
 35 40

<210> 8
 <211> 43
 <212> PRT
 <213> Rattus

<400> 8
 Glu Ser Gly Glu Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Pro
 1 5 10 15
 His Leu Gly Asn Tyr Leu Gly Ala Ile Glu Ser Trp Val Lys Leu Gln
 20 25 30
 Glu Glu Tyr Asp Thr Val Ile Tyr Ser Ile Val
 35 40

<210> 9
 <211> 43
 <212> PRT
 <213> Mus musculus

<400> 9

Asp Ser Lys Lys Arg Ile Phe Ser Gly Ile Gln Pro Thr Gly Ile Leu
 1 5 10 15
 His Leu Gly Asn Tyr Leu Gly Ala Ile Glu Asn Trp Val Arg Leu Gln
 20 25 30
 Asp Glu Tyr Asp Ser Val Leu Tyr Ser Ile Val
 35 40

<210> 10
 <211> 43
 <212> PRT
 <213> Homo sapien

<400> 10
 Asp Ser Lys Lys Arg Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Leu
 1 5 10 15
 His Leu Gly Asn Tyr Leu Gly Ala Ile Glu Ser Trp Val Arg Leu Gln
 20 25 30
 Asp Glu Tyr Asp Ser Val Leu Tyr Ser Ile Val
 35 40

<210> 11
 <211> 43
 <212> PRT
 <213> Gallus gallus

<400> 11
 Met Val Thr Asp Arg Ile Phe Ser Gly Ile Gln Pro Thr Gly Thr Pro
 1 5 10 15
 His Leu Gly Asn Tyr Leu Gly Ala Ile Gln Asn Trp Val Asn Leu Gln
 20 25 30
 Glu Lys Tyr Asn Ser Val Leu Tyr Ser Ile Met
 35 40

<210> 12
 <211> 47
 <212> PRT
 <213> Drosophila melanogaster

<400> 12
 Glu His Asn Thr Arg Trp Pro Arg Lys Val Phe Ser Gly Ile Gln Pro
 1 5 10 15
 Thr Gly Ser Leu His Leu Gly Asn Tyr Leu Gly Ala Val Arg Lys Trp
 20 25 30
 Val Gln Leu Gln Asn Ala Arg Asp Asp Val Thr Val Cys Ile Val
 35 40 45

<210> 13
 <211> 42
 <212> PRT
 <213> Danio rerio

<400> 13
 Ser Lys Gly Leu Val Phe Ser Gly Ile Gln Pro Thr Gly Ile Pro His
 1 5 10 15
 Leu Gly Asn Tyr Leu Gly Ala Leu Glu Ser Trp Val Ala Leu Gln Asp
 20 25 30
 Asp Tyr Ser Thr Val Met Tyr Ser Ile Val
 35 40

<210> 14
 <211> 46
 <212> PRT
 <213> *Saccharomyces cerevisiae*

<400> 14
 His Ser Asn Ala Thr Val Phe Ser Met Ile Gln Pro Thr Gly Cys Phe
 1 5 10 15
 His Leu Gly Asn Tyr Leu Gly Ala Thr Arg Val Trp Thr Asp Leu Cys
 20 25 30
 Glu Leu Lys Gln Pro Gly Gln Glu Leu Ile Phe Gly Val Ala
 35 40 45

<210> 15
 <211> 14
 <212> PRT
 <213> *Homo sapien*

<400> 15
 Lys Met Ser Lys Ser Asp Pro Asp Lys Leu Ala Thr Val Cys
 1 5 10

<210> 16
 <211> 16
 <212> PRT
 <213> *Homo sapien*

<400> 16
 Cys Ile Leu Thr Ser Met Lys Lys Val Lys Ser Leu Arg Asp Pro Ser
 1 5 10 15

<210> 17
 <211> 20
 <212> DNA
 <213> *Homo sapien*

<400> 17
 ttagtgacgc gcatgaatgg 20

<210> 18
 <211> 23
 <212> DNA
 <213> *Homo sapien*

<400> 18
 tgtggtttcg ctggatagta ggt 23

<210> 19
 <211> 22
 <212> DNA
 <213> *Homo sapien*

<400> 19
 agctcaactg cccagcgtga cc 22

<210> 20
 <211> 22
 <212> DNA
 <213> *Homo sapien*

<400> 20

cagtcagcct tgaatcctcc cc 22

<210> 21
 <211> 21
 <212> DNA
 <213> Homo sapien

<400> 21
 cttcttgccct gtggcataaa c 21

<210> 22
 <211> 22
 <212> DNA
 <213> Homo sapien

<400> 22
 cttccactga tgtaaagtgt gt 22

<210> 23
 <211> 20
 <212> DNA
 <213> Homo sapien

<400> 23
 agctactgcc atccaatcgc 20

<210> 24
 <211> 21
 <212> DNA
 <213> Homo sapien

<400> 24
 gggcgaatcc aattccaaga g 21

<210> 25
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Artificial Forward Primer

<400> 25
 ggggaattcgc cgccgcgatc gccaaaggat gaaattgatt ctgcagt 47

<210> 26
 <211> 56
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Artificial Reverse Primer

<400> 26
 gctctagatt acttatcgtc gtcaccttg taatcctgaa agtcgaagga cagctt 56

<210> 27
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Artificial Forward Primer

<400> 27
 gggaattcgt cgactggatc c 21
 <210> 28
 <211> 29
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Artificial Reverse Primer
 <400> 28
 gctcagagcc ggccgtttaa accttatcg 29
 <210> 29
 <211> 21
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Artificial Forward Primer
 <400> 29
 gggaattcgt cgactggatc c 21
 <210> 30
 <211> 30
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Artificial Reverse Primer
 <400> 30
 gctctagagc cggccgttta aactctttct 30
 <210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Artificial Forward Primer
 <400> 31
 gccaccgtcc gaataacaga 20
 <210> 32
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Artificial Reverse Primer
 <400> 32
 catgcaccgc cactatgttg 20
 <210> 33
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>

<223> Artificial Forward Primer

<400> 33
ggagtcaacg gatttggtcg 20

<210> 34
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial Reverse Primer

<400> 34
atgccccac ttgattttgg 20

<210> 35
<211> 19
<212> DNA
<213> Homo sapien

<400> 35
gcattcaacc tacaggaat 19

<210> 36
<211> 19
<212> DNA
<213> Homo sapien

<400> 36
ccgacattct gttgtacaa 19

<210> 37
<211> 19
<212> DNA
<213> Homo sapien

<400> 37
gctggacaag gaccattta 19

<210> 38
<211> 51
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> 26
<223> n = C or G

<400> 38
ttcatattct gtcgagacac ccatcncct gtgtttcact tgtctgatta c 51

<210> 39
<211> 35
<212> DNA
<213> Rattus

<400> 39
accacagct actgcggctc cccaggtaac ccgag 35

<210> 40
<211> 20
<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial Primer

<400> 40

gtgagtgctg gcgcttcac

20

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial Primer

<400> 41

ggcctaaagc agaaggctcgg

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<210> 42

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial Forward Primer

<400> 42

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21

<210> 43

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial Reverse Primer

<400> 43

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20

<210> 44

<211> 20

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<213> Artificial Sequence

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<223> Artificial Forward Primer

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aaagggtcat catctccgcc

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<210> 45

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial Reverse Primer

<400> 45

ccttccacga tgccaaagtt

20

<210> 46

<211> 19
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> siRNA Sense Strand

<400> 46
 ugguuuacau gucgacuuu 19

<210> 47
 <211> 19
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> siRNA Antisense Strand

<400> 47
 agucgacaug uaaaccauu 19

<210> 48
 <211> 19
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> siRNA Sense Strand

<400> 48
 gcuccaauca gaagugauu 19

<210> 49
 <211> 19
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> siRNA Antisense Strand

<400> 49
 ucacuucuga uuggagcuu 19

<210> 50
 <211> 19
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> siRNA Sense Strand

<400> 50
 gcuuuacacc uacaggaau 19

<210> 51
 <211> 19
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<220>
 <223> siRNA Antisense Strand

<400> 51
 auuccuguag guugaugc 19

<210> 52
<211> 19
<212> RNA
<213> Artificial Sequence

<220>
<223> siRNA Sense Strand

<400> 52
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<210> 53
<211> 19
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<400> 53
uuguacaaca gaaugucgg 19

<210> 54
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<223> siRNA Sense Strand

<400> 54
gcuggacaag gaccuuua 19

<210> 55
<211> 19
<212> RNA
<213> Artificial Sequence

<220>
<223> siRNA Antisense Strand

<400> 55
uaaauggucc uuguccagc 19