

1003013115_1.txt
SEQUENCE LISTING

<110> SANGAMO THERAPEUTICS, INC.

<120> GENETIC MODIFICATION OF CYTOKINE INDUCIBLE SH2-CONTAINING PROTEIN
(CISH) GENE

<130> 8325-0167.40

<140> PCT/US2018/060038

<141> 2018-11-09

<150> 62/716,002

<151> 2018-08-08

<150> 62/583,724

<151> 2017-11-09

<160> 50

<170> PatentIn version 3.5

<210> 1

<211> 196

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<223> Description of Unknown:

FokI cleavage half domain sequence

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Gln Leu Val Lys Ser Glu Leu Glu Glu Lys Lys Ser Glu Leu Arg His
1 5 10 15

Lys Leu Lys Tyr Val Pro His Glu Tyr Ile Glu Leu Ile Glu Ile Ala
20 25 30

Arg Asn Ser Thr Gln Asp Arg Ile Leu Glu Met Lys Val Met Glu Phe
35 40 45

Phe Met Lys Val Tyr Gly Tyr Arg Gly Lys His Leu Gly Gly Ser Arg
50 55 60

Lys Pro Asp Gly Ala Ile Tyr Thr Val Gly Ser Pro Ile Asp Tyr Gly
65 70 75 80

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Val Ile Val Asp Thr Lys Ala Tyr Ser Gly Gly Tyr Asn Leu Pro Ile
85 90 95

Gly Gln Ala Asp Glu Met Gln Arg Tyr Val Glu Glu Asn Gln Thr Arg
100 105 110

Asn Lys His Ile Asn Pro Asn Glu Trp Trp Lys Val Tyr Pro Ser Ser
115 120 125

Val Thr Glu Phe Lys Phe Leu Phe Val Ser Gly His Phe Lys Gly Asn
130 135 140

Tyr Lys Ala Gln Leu Thr Arg Leu Asn His Ile Thr Asn Cys Asn Gly
145 150 155 160

Ala Val Leu Ser Val Glu Glu Leu Leu Ile Gly Gly Glu Met Ile Lys
165 170 175

Ala Gly Thr Leu Thr Leu Glu Glu Val Arg Arg Lys Phe Asn Asn Gly
180 185 190

Glu Ile Asn Phe
195

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Arg Ser Asp His Leu Ser Gln
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Gln Asn Ala Thr Arg Thr Lys

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<210> 4

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<223> Description of Artificial Sequence: Synthetic peptide

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1 5

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<223> Description of Artificial Sequence: Synthetic peptide

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Lys Arg Cys Asn Leu Arg Cys

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<210> 6

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<223> Description of Artificial Sequence: Synthetic peptide

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Asp Arg Ser Thr Arg Thr Lys

1 5

<210> 7

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<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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Arg Arg Asp Asn Leu His Ser
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<210> 8

<211> 7

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide

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Gly His Thr Ser Leu Lys Arg
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<210> 9

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Thr Ser Gly His Leu Ser Arg
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Asp Arg Ser Ala Leu Ala Arg
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peptide

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Asp Arg Ser Asn Leu Thr Arg
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Gln Ser Gly Asn Leu Ala Arg
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Ala Thr Cys Cys Leu Ala His
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Arg Ser Asp Asp Leu Thr Arg
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<210> 19

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Gln Ala Ala Thr Leu Ser Arg
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<210> 21

<211> 7

<212> PRT

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Asp Arg Ser His Leu Ala Arg

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Gln Ser Gly Asp Leu Thr Arg

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<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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Gln Ser Gly Asn Leu His Val

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<210> 25

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Gln Ser Gly His Leu Ala Arg
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<210> 26

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<212> PRT

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<223> Description of Artificial Sequence: Synthetic
peptide

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Asn Arg Tyr Asp Leu Met Thr
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<210> 27

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic
peptide

<400> 27

Arg Ser Asp Ser Leu Leu Arg
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<210> 28

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic
peptide

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Cys Arg Glu Tyr Arg Gly Lys
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<210> 29

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 29

Gln Ser Ser His Leu Thr Arg
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<210> 30

<211> 7

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 30

Gln Ser Ser Asp Leu Thr Arg
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<210> 31

<211> 7

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 31

Arg Leu Asp Ile Leu Gln Gln
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<210> 32

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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Arg Ser Asp Asn Leu Ser Thr
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<210> 33

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<212> PRT

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<400> 33

Asp Asn Ser Tyr Leu Pro Arg

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<210> 34

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 34

Asp Arg Ser Asn Leu Ser Arg

1 5

<210> 35

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 35

Leu Arg Gln Asp Leu Lys Arg

1 5

<210> 36

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 36

Asp Asn Ser Asn Arg Ile Asn

1 5

<210> 37
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 Gln Ser Ser Asp Leu Ser Arg
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<400> 38
 Trp Lys Trp Asn Leu Arg Ala
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<210> 39
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 Gln Lys Gly Thr Leu Gly Glu
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<210> 40
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ggaaggcccc agcaggcaag ggctgcat 28

<210> 41
<211> 28
<212> DNA
<213> Unknown

<220>
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gaggaggtgg cagaggtac cccagccc 28

<210> 42
<211> 28
<212> DNA
<213> Unknown

<220>
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ccagcaaagg acgaggtcta gaaggcag 28

<210> 43
<211> 28
<212> DNA
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<220>
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CISH target site sequence

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gtggagcgga ctgggcagcg gcccctgt 28

<210> 44
<211> 28
<212> DNA
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<220>
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gatgcgtggc ctggacaagc agttggag 28

<210> 45
<211> 28
<212> DNA
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CISH target site sequence

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gagtccagac ggaagctgga gtcggcat 28

<210> 46
<211> 28
<212> DNA
<213> Unknown

<220>
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CISH target site sequence

<400> 46
atagtgtgc acaaggctga ccacatcc 28

<210> 47
<211> 28
<212> DNA
<213> Unknown

<220>
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CISH target site sequence

<400> 47
ccggaaaggc caggatgcgt ggcctgga 28

<210> 48
<211> 1100
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown:
CISH sequence

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cagcccttgc ctgctggggc cttcctcgag gaggtggcag agggtagccc agcccagaca	180
gagagtgagc caaaggtgct ggaccagag gaggatctgc tgtgcatagc caagaccttc	240
tcctaccttc gggaatctgg tgagtctgag gggggaggca ggccttttcc tgagtagtct	300
ggtgggagaa gcttagttct gcctttgagt ctgatttggg aggcatagcc cggcccagga	360
gagtctgatg ggagaggcac agccctctct agggaagcgt gaagctggag gcactgcctt	420
gacttgcact ggattgggta ccccagctaa tttccactat gtcccttggc cccctctgca	480
cttgccctagg ctgggtattgg ggttccatta cggccagcga ggcccgacaa cacctgcaga	540
agatgccaga aggcacgttc ttagtacgtg acagcacgca ccccagctac ctgttcacgc	600
tgtcagtga aaccactcgt ggccccacca atgtacgcat tgagtatgcc gactccagct	660
tccgtctgga ctccaactgc ttgtccaggc cacgcatacct ggcctttccg gatgtggtca	720
gccttgtgca gcactatgtg gcctcctgca ctgctgatac ccgaagcgac agccccgatc	780
ctgctccac cccggccctg cctatgccta aggaggatgc gcctagtgc ccagcactgc	840
ctgctcctcc accagccact gctgtacacc taaaactggt gcagcccttt gtacgcagaa	900
gcagtgccc cagcctgcaa cacctgtgcc gccttgtcat caaccgtctg gtggccgacg	960
tggactgcct gccactgccc cggcgcctgg ccgactacct ccgacagtac cccttcagc	1020
tctgactgta cggggcaatc tgcccaccct caccagtcg caccctggag gggacatcag	1080
ccccagctgg acttgggccc	1100

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<212> PRT

<213> Unknown

<220>

<223> Description of Unknown:

'LAGLIDADG' family peptide motif sequence

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Leu Ala Gly Leu Ile Asp Ala Asp Gly

1

5

<210> 50

<211> 32

<212> DNA

<213> Unknown

<220>

<223> Description of Unknown:
CISH sequence

<400> 50

ggaaaggcca ggatgcgtgg cctggacaag ca

32