

SEQUENCE LISTING

<110> Adverum Biotechnologies, Inc.

<120> METHODS OF TREATING OCULAR NEOVASCULAR DISEASES
USING AAV2 VARIANTS ENCODING AFLIBERCEPT

<130> 62700-20012.40

<140> Not Yet Assigned

<141> Concurrently Herewith

<150> US 62/913,648

<151> 2019-10-10

<150> US 62/899,070

<151> 2019-09-11

<160> 37

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 1

Leu Ala Leu Gly Glu Thr Thr Arg Pro Ala

1 5 10

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<211> 10

<212> PRT

<213> Artificial Sequence

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<223> Synthetic Construct

<400> 2

Leu Ala Asn Glu Thr Ile Thr Arg Pro Ala

1 5 10

<210> 3

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<223> Synthetic Construct

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Leu Ala Lys Ala Gly Gln Ala Asn Asn Ala
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<211> 10

<212> PRT

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<220>

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Leu Ala Lys Asp Pro Lys Thr Thr Asn Ala
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Lys Asp Thr Asp Thr Thr Arg
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<400> 6

Arg Ala Gly Gly Ser Val Gly
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<400> 7

Ala Val Asp Thr Thr Lys Phe
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<211> 7

<212> PRT

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Ser Thr Gly Lys Val Pro Asn
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<400> 9

Leu Ala Lys Asp Thr Asp Thr Thr Arg Ala
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<210> 10

<211> 10

<212> PRT

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<223> Synthetic Construct

<400> 10

Leu Ala Arg Ala Gly Gly Ser Val Gly Ala
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<210> 11

<211> 10

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<400> 11

Leu Ala Ala Val Asp Thr Thr Lys Phe Ala
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<210> 12

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 12

Leu Ala Ser Thr Gly Lys Val Pro Asn Ala
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<210> 13

<211> 735

<212> PRT

<213> Adeno-associated virus - 2

<400> 13

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

				245				250				255			
Tyr	Lys	Gln	Ile	Ser	Ser	Gln	Ser	Gly	Ala	Ser	Asn	Asp	Asn	His	Tyr
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Phe	Gly	Tyr	Ser	Thr	Pro	Trp	Gly	Tyr	Phe	Asp	Phe	Asn	Arg	Phe	His
		275					280					285			
Cys	His	Phe	Ser	Pro	Arg	Asp	Trp	Gln	Arg	Leu	Ile	Asn	Asn	Asn	Trp
	290					295					300				
Gly	Phe	Arg	Pro	Lys	Arg	Leu	Asn	Phe	Lys	Leu	Phe	Asn	Ile	Gln	Val
305				310						315					320
Lys	Glu	Val	Thr	Gln	Asn	Asp	Gly	Thr	Thr	Thr	Ile	Ala	Asn	Asn	Leu
			325					330						335	
Thr	Ser	Thr	Val	Gln	Val	Phe	Thr	Asp	Ser	Glu	Tyr	Gln	Leu	Pro	Tyr
			340					345					350		
Val	Leu	Gly	Ser	Ala	His	Gln	Gly	Cys	Leu	Pro	Pro	Phe	Pro	Ala	Asp
	355						360					365			
Val	Phe	Met	Val	Pro	Gln	Tyr	Gly	Tyr	Leu	Thr	Leu	Asn	Asn	Gly	Ser
	370					375					380				
Gln	Ala	Val	Gly	Arg	Ser	Ser	Phe	Tyr	Cys	Leu	Glu	Tyr	Phe	Pro	Ser
385				390						395					400
Gln	Met	Leu	Arg	Thr	Gly	Asn	Asn	Phe	Thr	Phe	Ser	Tyr	Thr	Phe	Glu
			405					410						415	
Asp	Val	Pro	Phe	His	Ser	Ser	Tyr	Ala	His	Ser	Gln	Ser	Leu	Asp	Arg
		420						425					430		
Leu	Met	Asn	Pro	Leu	Ile	Asp	Gln	Tyr	Leu	Tyr	Tyr	Leu	Ser	Arg	Thr
	435					440					445				
Asn	Thr	Pro	Ser	Gly	Thr	Thr	Thr	Gln	Ser	Arg	Leu	Gln	Phe	Ser	Gln
	450					455					460				
Ala	Gly	Ala	Ser	Asp	Ile	Arg	Asp	Gln	Ser	Arg	Asn	Trp	Leu	Pro	Gly
465				470						475					480
Pro	Cys	Tyr	Arg	Gln	Gln	Arg	Val	Ser	Lys	Thr	Ser	Ala	Asp	Asn	Asn
			485					490						495	
Asn	Ser	Glu	Tyr	Ser	Trp	Thr	Gly	Ala	Thr	Lys	Tyr	His	Leu	Asn	Gly
		500					505						510		
Arg	Asp	Ser	Leu	Val	Asn	Pro	Gly	Pro	Ala	Met	Ala	Ser	His	Lys	Asp
	515						520					525			
Asp	Glu	Glu	Lys	Phe	Phe	Pro	Gln	Ser	Gly	Val	Leu	Ile	Phe	Gly	Lys
	530					535					540				
Gln	Gly	Ser	Glu	Lys	Thr	Asn	Val	Asp	Ile	Glu	Lys	Val	Met	Ile	Thr
545				550						555					560
Asp	Glu	Glu	Glu	Ile	Arg	Thr	Thr	Asn	Pro	Val	Ala	Thr	Glu	Gln	Tyr
			565					570						575	
Gly	Ser	Val	Ser	Thr	Asn	Leu	Gln	Arg	Gly	Asn	Arg	Gln	Ala	Ala	Thr
		580					585						590		
Ala	Asp	Val	Asn	Thr	Gln	Gly	Val	Leu	Pro	Gly	Met	Val	Trp	Gln	Asp
	595					600						605			
Arg	Asp	Val	Tyr	Leu	Gln	Gly	Pro	Ile	Trp	Ala	Lys	Ile	Pro	His	Thr
	610					615					620				
Asp	Gly	His	Phe	His	Pro	Ser	Pro	Leu	Met	Gly	Gly	Phe	Gly	Leu	Lys
625				630						635					640
His	Pro	Pro	Pro	Gln	Ile	Leu	Ile	Lys	Asn	Thr	Pro	Val	Pro	Ala	Asn
			645					650						655	
Pro	Ser	Thr	Thr	Phe	Ser	Ala	Ala	Lys	Phe	Ala	Ser	Phe	Ile	Thr	Gln
		660					665					670			
Tyr	Ser	Thr	Gly	Gln	Val	Ser	Val	Glu	Ile	Glu	Trp	Glu	Leu	Gln	Lys

			675				680				685						
Glu	Asn	Ser	Lys	Arg	Trp	Asn	Pro	Glu	Ile	Gln	Tyr	Thr	Ser	Asn	Tyr		
	690					695					700						
Asn	Lys	Ser	Val	Asn	Val	Asp	Phe	Thr	Val	Asp	Thr	Asn	Gly	Val	Tyr		
705					710					715					720		
Ser	Glu	Pro	Arg	Pro	Ile	Gly	Thr	Arg	Tyr	Leu	Thr	Arg	Asn	Leu			
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<210> 14
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 14
 Leu Gly Glu Thr Thr Arg Pro
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<210> 15
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 15
 Asn Glu Thr Ile Thr Arg Pro
 1 5

<210> 16
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 16
 Lys Ala Gly Gln Ala Asn Asn
 1 5

<210> 17
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 17

Lys Asp Pro Lys Thr Thr Asn
1 5

<210> 18

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 18

Lys Asp Thr Asp Thr Thr Arg
1 5

<210> 19

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 19

Arg Ala Gly Gly Ser Val Gly
1 5

<210> 20

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 20

Ala Val Asp Thr Thr Lys Phe
1 5

<210> 21

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 21
Ser Thr Gly Lys Val Pro Asn
1 5

<210> 22
<211> 293
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 22
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aatgacgtat gttcccatag taacgccaat agggactttc cattgacgtc aatgggtgga 120
gtatttacgg taaactgccc acttggcagt acatcaagtg tatcatatgc caagtccgcc 180
ccctattgac gtcaatgacg gtaaattggcc cgcctggcat tatgcccagt acatgacctt 240
acgggacttt cctacttggc agtacatcta cgtattagtc atcgctatta cca 293

<210> 23
<211> 220
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 23
tgctgatgcg gttttggcag tacaccaatg ggcgtggata gcggtttgac tcacggggat 60
ttccaagtct ccacccatt gacgtcaatg ggagtttgtt ttggcaccaa aatcaacggg 120
actttccaaa atgtcgtaat aaccccgccc cgttgacgca aatgggcggg aggcgtgtac 180
ggtagggagg ctatataagc agagctcggt tagtgaaccg 220

<210> 24
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 24
ctcactctct tccgcatcgc tgtctgagag ggccagctgt tgggctcgcg gttgaggaca 60
aactcttcgc ggtctttcca gtactcttgg atcggaacc cgtcggcctc cgaacggtac 120
tccgccaccg agggacctga gcgagtccgc atcgaccgga tcggaaaacc tctcgagaaa 180
ggcgtctaac cagtcacagt cgcaaggtag gctgagcacc gtggcgggcg gcagcgggtg 240
gcggctcggg ttgtttctgg cggaggtgct gctgatgatg taattaaagt aggcgggtctt 300
gagacggcgg atggtcga 318

<210> 25
<211> 102
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 25

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ccagctgttg gggtagtac tccctctcaa aagcgggcat tacttctgcg ctaagattgt 60
cagtttccaa aaacgaggag gatttgatat tcacctggcc cg 102
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<210> 26

<211> 810

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 26

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gccttttaat atttctctaa tttagtgtat atgcaatgat agttctctga tttctgagat 120
tgagtttctc atgtgtaatg attatttaga gtttctcttt catctgttca aatttttgtc 180
tagttttatt ttttactgat ttgtaagact tctttttata atctgcatat tacaattctc 240
tttactgggg tggtgcaaat attttctgtc attctatggc ctgacttttc ttaatggttt 300
tttaatttta aaaataagtc ttaatatcca tgcaatctaa ttaacaatct tttctttgtg 360
gtaggactt tgagtcataa gaaatttttc tctacactga agtcatgatg gcatgcttct 420
atattatatt ctaaaagatt taaagttttg ctttctccat ttagacttat aattcactgg 480
aatttttttg tgtgtatggg atgacatatg gggtcccttt tattttttac atataaatat 540
atttccctgt ttttctaaaa aagaaaaaga tcatcatttt cccattgtaa aatgccatat 600
ttttttcata ggtcacttac atatatcaat ggggtctgttt ctgagctcta ctctatttta 660
tcagcctcac tgtctatccc cacacatctc atgctttgct ctaaactctg atatttagtg 720
gaacattctt tcccattttg ttctacaaga atatttttgt tattgtcttt gggcttttcta 780
tatacatttt gaaatgaggt tgacaagtta 810
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<210> 27

<211> 202

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 27

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actccagtgc ccaccagcct tgtcctaata aaattaagtt gcatcatttt gtctgactag 120
gtgtccttct ataataattat ggggtggagg ggggtggtat ggagcaaggg gcccaagttg 180
ggaagaaacc ttagggcct gc 202
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<210> 28

<211> 68

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 28
aggcggctctt gagacggcgg atggtcgagg tgaggtgtgg caggcttgag atccagctgt 60
tgggggtga 68

<210> 29
<211> 129
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 29
cgctgttttg acctccatag tggacaccgg gaccgatcca gcctccgcgt ctcaggggag 60
atctcgttta gtgaaccgtc agatcctcac tctcttccgc atcgctgtct gcgagggcca 120
gctgttggg 129

<210> 30
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 30
ttgatattca cctggcccga tctggccata cacttg 36

<210> 31
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 31
cccaggtcca agtttaaag cc 22

<210> 32
<211> 77
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 32
tctttgggct ttctatatac attttgaaat gaggttgaca agttacctag gaaaactgtc 60
ttcctgcccg ggtggca 77

<210> 33
<211> 1172
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 33

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caatgggtgg agtattttac gtaaactgcc cacttggcag tacatcaagt gtatcatatg 180
ccaagtccgc cccctattga cgtcaatgac ggtaaattggc ccgcctggca ttatgcccag 240
tacatgacct tacgggactt tcctacttgg cagtacatct acgtattagt catcgctatt 300
accatgctga tgcggttttg gcagtacacc aatgggctgt gatagcgggt tgactcacgg 360
ggatttccaa gtctccaccc cattgacgtc aatgggagtt tgttttggca ccaaaatcaa 420
cgggactttc caaaatgtcg taataacccc gccccgttga cgcaaattgg cggtaggcgt 480
gtacggtggg aggtctatat aagcagagct cgttttagtg accgtcagat cgcctggaga 540
ggccatccac gctgttttga cctccatagt ggacaccggg accgatccag cctccgcgtc 600
tcaggggaga tctcgtttag tgaaccgtca gatcctcact ctcttccgca tcgctgtctg 660
cgagggccag ctgttgggct cgcggttgag gacaaactct tcgcggtctt tccagtactc 720
ttggatcgga aacccgtcgg cctccgaacg gtactccgcc accgagggac ctgagcgagt 780
ccgcatcgac cggatcggaa aacctctcga gaaaggcgtc taaccagtca cagtcgcaag 840
gtaggctgag caccgtggcg ggcggcagcg ggtggcggtc ggggttgttt ctggcggagg 900
tgctgctgat gatgtaatta aagtaggcgg tcttgagacg gcggtgggtc gaggtgaggt 960
gtggcaggct tgagatccag ctgttggggg gagtactccc tctcaaaagc gggcattact 1020
tctgcgctaa gattgtcagt ttccaaaaac gaggaggatt tgatattcac ctggcccgat 1080
ctggccatac acttgagtga caatgacatc cactttgcct ttctctccac aggtgtccac 1140
tcccaggtcc aagtttaaac gccgccacca tg 1172
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<210> 34

<211> 1043

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 34

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ttgagtttct catgtgtaat gattatttag agtttctctt tcactctgtt aaatttttgt 180
ctagttttat ttttactga tttgtaagac ttctttttat aatctgcata ttacaattct 240
ctttactggg gtgttgcaaa tattttctgt cattctatgg cctgactttt cttaatgggt 300
ttttaatttt aaaaataagt cttaatatc atgcaatcta attaacaatc ttttctttgt 360
ggttaggact ttgagtcata agaaattttt ctctacactg aagtcatgat ggcatgcttc 420
tatattatth tctaaaagat ttaaagtttt gccttctcca tttagactta taattcactg 480
gaattttttt gtgtgtatgg tatgacatat gggttccctt ttatttttta catataaata 540
tatttccctg ttttctaaa aaagaaaaag atcatcattt tcccattgta aaatgccata 600
tttttttcat aggtcactta catatatcaa tgggtctgtt tctgagctct actctattht 660
atcagcctca ctgtctatcc ccacacatct catgctttgc tctaaatctt gatatttagt 720
ggaacattct ttcccatttt gttctacaag aatatttttg ttattgtctt tgggctttct 780
atatacattt tgaaatgagg ttgacaagtt acctaggaaa actgtcttcc tgcccgggtg 840
gcatccctgt gaccctccc cagtgcctct cctggccctg gaagttgcca ctccagtgcc 900
caccagcctt gtctaataa aattaagttg catcattttg tctgactagg tgtccttcta 960
taatattatg ggggtggagg gggtggtatg gagcaagggg cccaagttgg gaagaaacct 1020
gtagggcctg cgaagacagt cag 1043
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<210> 35
 <211> 431
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 35
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 1 5 10 15
 Ile Ile His Met Thr Glu Gly Arg Glu Leu Val Ile Pro Cys Arg Val
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 Thr Ser Pro Asn Ile Thr Val Thr Leu Lys Lys Phe Pro Leu Asp Thr
 35 40 45
 Leu Ile Pro Asp Gly Lys Arg Ile Ile Trp Asp Ser Arg Lys Gly Phe
 50 55 60
 Ile Ile Ser Asn Ala Thr Tyr Lys Glu Ile Gly Leu Leu Thr Cys Glu
 65 70 75 80
 Ala Thr Val Asn Gly His Leu Tyr Lys Thr Asn Tyr Leu Thr His Arg
 85 90 95
 Gln Thr Asn Thr Ile Ile Asp Val Val Leu Ser Pro Ser His Gly Ile
 100 105 110
 Glu Leu Ser Val Gly Glu Lys Leu Val Leu Asn Cys Thr Ala Arg Thr
 115 120 125
 Glu Leu Asn Val Gly Ile Asp Phe Asn Trp Glu Tyr Pro Ser Ser Lys
 130 135 140
 His Gln His Lys Lys Leu Val Asn Arg Asp Leu Lys Thr Gln Ser Gly
 145 150 155 160
 Ser Glu Met Lys Lys Phe Leu Ser Thr Leu Thr Ile Asp Gly Val Thr
 165 170 175
 Arg Ser Asp Gln Gly Leu Tyr Thr Cys Ala Ala Ser Ser Gly Leu Met
 180 185 190
 Thr Lys Lys Asn Ser Thr Phe Val Arg Val His Glu Lys Asp Lys Thr
 195 200 205
 His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 210 215 220
 Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 225 230 235 240
 Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 245 250 255
 Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 260 265 270
 Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
 275 280 285
 Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 290 295 300
 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 305 310 315 320
 Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 325 330 335
 Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys
 340 345 350

Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser
		355					360					365			
Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp
	370					375					380				
Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser
385					390					395				400	
Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala
			405					410					415		
Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	
		420					425					430			

<210> 36
 <211> 1377
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 36
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 cccgaaatta tacacatgac tgaaggaagg gagctcgtca ttccctgccg ggttacgtca 180
 cctaacaatca ctgttacttt aaaaagttt ccacttgaca ctttgatccc tgatggaaaa 240
 cgcataatct gggacagtag aaagggtctt atcatatcaa atgcaacgta caaagaaata 300
 gggcttctga cctgtgaagc aacagtcaat gggcatttgt ataagacaaa ctatctcaca 360
 catcgacaaa ccaatacaat catagatgtg gttctgagtc cgtctcatgg aattgaacta 420
 tctgttggag aaaagcttgt cttaaattgt acagcaagaa ctgaactaaa tgtggggatt 480
 gacttcaact gggaataccc ttcttcgaag catcagcata agaaacttgt aaaccgagac 540
 ctaaaaaccc agtctgggag tgagatgaag aaatttttga gcaccttaac tatagatggg 600
 gtaacccgga gtgaccaagg attgtacacc tgtgcagcat ccagtgggct gatgaccaag 660
 aagaacagca catttgtcag ggtccatgaa aaggacaaaa ctcacacatg cccaccgtgc 720
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Gly 625	Pro	Ile	Trp	Ala	Lys 630	Ile	Pro	His	Thr	Asp	Gly	His	Phe	His	Pro 640
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