

50474-134W02_Sequence_Listing_6_14_16_ST25
SEQUENCE LISTING

<110> Genentech, Inc.
F. Hoffmann-La Roche AG

<120> HUMANIZED AND AFFINITY MATURED ANTIBODIES TO FcRH5 AND METHODS OF
USE

<130> 50474-134W02

<150> US 62/180,459

<151> 2015-06-16

<160> 215

<170> PatentIn version 3.5

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Arg Phe Gly Val His
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His	Tyr	Tyr	Gly	Ser	Xaa	Asp	Tyr	Ala	Leu	Asp	Asn
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Lys Ala Ser Gln Asp Val Xaa Asn Xaa Val Val
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Ser Xaa Xaa Xaa Arg Tyr Xaa
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Gln Gln Xaa Xaa Xaa Xaa Pro Tyr Thr

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Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met Ser

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Val	Ile	Trp	Arg	Gly	Gly	Ser	Thr	Asp	Tyr	Asn	Ala	Ala	Phe	Val	Ser
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His	Tyr	Tyr	Gly	Ser	Ser	Asp	Tyr	Ala	Leu	Asp	Asn
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His	Tyr	Tyr	Gly	Ser	Pro	Asp	Tyr	Ala	Leu	Asp	Asn
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Lys Ala Ser Gln Asp Val Ser Asn Ile Val Val
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Lys Ala Ser Gln Asp Val Arg Asn Leu Val Val
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Lys Ala Ser Gln Asp Val Arg Asn Ile Val Val
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Lys Ala Ser Gln Asp Val Ser Asn Leu Val Val
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Ser Ala Ser Tyr Arg Tyr Thr
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Ser Gly Ser Tyr Arg Tyr Ser
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Ser Gly Tyr Asn Arg Tyr Ser
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Ser Gly Tyr Tyr Arg Tyr Thr
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Ser Gly Tyr Tyr Arg Tyr Ser
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Gln Gln His Tyr Ser Ser Pro Tyr Thr
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Gln Gln Gln Tyr Ser Pro Pro Tyr Thr
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Gln Gln Gln Phe Gln Pro Pro Tyr Thr
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Gln Gln His Tyr Ser Pro Pro Tyr Thr
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Gln Gln Gln Tyr Gln Pro Pro Tyr Thr
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Gln Gln His Tyr Gln Pro Pro Tyr Thr
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Gly Ile Asp Leu Ser Ser Tyr Ala Met Gly
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Thr Ile Gly Thr Gly Gly Thr Pro Tyr Tyr Ala Ser Trp Ala Lys Gly
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Ala Arg Asp Met Tyr Thr Gly Ser Ile Tyr Tyr Asp Met
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Gln Ser Ser Gln Ser Val Phe Asn Asn Ala Gln Leu Ser
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Asp Thr Ser Asn Leu Ala Ser
1 5

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Leu Gly Ala Tyr Thr Asp Asp Ala Asp Asn Ala
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Gly	Tyr	Thr	Phe	Thr	His	Tyr	Ala	Met	His
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Met	Ile	Ser	Ser	Ser	Ser	Gly	Asn	Thr	Asn	Phe	Asn	Gln	Lys	Phe	Met
1				5					10					15	

Asp

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Ala	Arg	Trp	Ser	Tyr	Tyr	Ala	Leu	Phe	Asp	Tyr
1				5					10	

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Ser	Ala	Asp	Ser	Ser	Val	Asp	Tyr	Ile	His
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Asp	Thr	Ser	Lys	Leu	Ala	Ser
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Phe	Gln	Gly	Ser	Gly	Tyr	Pro	Leu	Thr
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Gly Tyr Thr Phe Thr Asn Tyr Val Ile His
1 5 10

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Tyr Ile Ser Pro Tyr Asn Asp Tyr Thr Lys Tyr Asn Glu Lys Phe Glu
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Gly

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Ala Arg Arg Asp Tyr Tyr Gly Ser Ser Asp Tyr
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Ser Ala Ser Ser Ser Val Asp Tyr Met His
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Asp Thr Ser Lys Leu Ala Ser
 1 5

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Gln Gln Trp Ser Ser Asn Pro Pro Thr
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Xaa	Val	Gln	Leu	Val	Glu	Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Ser	Glu
1				5					10					15	

Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val	Ser	Gly	Phe	Xaa	Xaa	Thr
			20					25					30

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Trp	Xaa	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Xaa	Gly
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Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu Lys
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Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser Asn
20 25 30

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Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys
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Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Xaa	Pro	Lys	Leu	Leu	Ile	Tyr
1				5				10						15

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Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr
1				5				10						15	

Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys
			20					25					30		

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Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
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Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr
 20 25 30

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Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr
 20 25 30

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Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu Gly
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Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly
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Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile Tyr
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Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
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Ser Leu Arg Leu Ser Cys Ala Val Ser
20 25

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Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
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Arg Phe Thr Ile Ser Lys Asp Ser Ser Lys Asn Thr Val Tyr Leu Gln
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Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Phe Cys
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Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
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Asp	Ala	Gln	Leu	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5					10					15	

Asp	Arg	Val	Thr	Ile	Thr
			20		

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Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Pro	Pro	Lys	Leu	Leu	Ile	Tyr
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Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr
1				5					10					15	

Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys
			20					25					30		

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Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
1				5					10

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Gln	Val	Gln	Leu	Gln	Gln	Ser	Gly	Pro	Glu	Leu	Val	Arg	Pro	Gly	Val
1				5					10					15	

Ser	Val	Lys	Ile	Ser	Cys	Lys	Gly	Ser
			20					25

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Trp	Val	Lys	Gln	Ser	His	Thr	Lys	Ser	Leu	Glu	Trp	Ile	Gly
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<400> 68

Lys	Ala	Thr	Met	Thr	Val	Asp	Lys	Ser	Ser	Thr	Thr	Ala	Tyr	Leu	Glu
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Leu	Ala	Arg	Leu	Thr	Phe	Gly	Asp	Ser	Ala	Ile	Tyr	Tyr	Cys
			20					25					30

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Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser
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Glu	Asn	Val	Leu	Thr	Gln	Ser	Pro	Ala	Ile	Met	Ser	Ala	Ser	Pro	Gly
1				5					10					15	

Glu	Lys	Val	Thr	Met	Thr	Cys
						20

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Trp	Tyr	Gln	Gln	Lys	Ser	Asn	Thr	Ser	Pro	Lys	Leu	Trp	Ile	Tyr
1				5					10					15

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<400> 72

Gly	Val	Pro	Gly	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Asn	Ser	Tyr	Ser
1				5					10					15	

Leu	Thr	Ile	Ser	Ser	Met	Glu	Ala	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys
			20					25					30		

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Phe Gly Ser Gly Thr Lys Leu Glu Leu Lys
1 5 10

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Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
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Ser Val Lys Met Ser Cys Lys Ala Ser
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<400> 75

Trp Met Lys Gln Lys Pro Gly Gln Gly Leu Glu Trp Ile Gly
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Lys Ala Thr Leu Thr Ser Asp Lys Ser Ser Asn Thr Ala Tyr Met Glu
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Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
20 25 30

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<400> 77

Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
1 5 10

<210> 78

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<400> 78

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys
20

<210> 79

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<400> 79

Trp	Tyr	Gln	Gln	Lys	Ser	Gly	Thr	Ser	Pro	Lys	Lys	Trp	Ile	Tyr
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Gly	Val	Pro	Ala	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Ser	Tyr	Ser
1				5					10					15	

Leu	Thr	Ile	Gly	Ser	Met	Glu	Ala	Glu	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys
			20					25					30		

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Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys
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<220>

<223> Synthetic construct

<400> 82

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 83

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 83

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1             5             10             15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
      20             25             30
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
      35             40             45
Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
      50             55             60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
      65             70             75             80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
      85             90             95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100             105

```

<210> 84
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 84

```

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1             5             10             15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20             25             30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35             40             45

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 85
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 85

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Leu
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

50474-134W02_Sequence_Listing_6_14_16_ST25

65		70		75		80
Glu	Asp	Phe	Ala	Thr	Tyr	Tyr
			85			
					Cys	Gln
						90
					Gln	Gln
					Tyr	Ser
					Pro	Pro
						95
					Tyr	
Thr	Phe	Gly	Gln	Gly	Thr	Lys
			100			
					Val	Glu
						105
					Ile	Lys
<210>	86					
<211>	120					
<212>	PRT					
<213>	Artificial Sequence					
<220>						
<223>	Synthetic construct					
<400>	86					
Glu	Val	Gln	Leu	Val	Glu	Ser
1			5			
					Gly	Pro
						10
					Gly	Leu
					Val	Lys
					Pro	Ser
						15
					Glu	
Thr	Leu	Ser	Leu	Thr	Cys	Thr
			20			
					Val	Ser
						25
					Gly	Phe
					Ser	Leu
					Thr	Arg
						30
					Phe	
Gly	Val	His	Trp	Val	Arg	Gln
		35				
					Pro	Pro
						40
					Gly	Lys
					Gly	Leu
					Glu	Trp
						45
					Leu	
Gly	Val	Ile	Trp	Arg	Gly	Gly
		50				
					Ser	Thr
						55
					Asp	Tyr
					Asn	Ala
						60
					Ala	Phe
					Met	
Ser	Arg	Leu	Thr	Ile	Ser	Lys
65						
					70	
					Asp	Asn
						75
					Ser	Lys
					Asn	Gln
						80
					Val	Ser
					Leu	
Lys	Leu	Ser	Ser	Val	Thr	Ala
					85	
					Ala	Ala
					Asp	Thr
						90
					Ala	Val
					Tyr	Tyr
					Cys	Ser
						95
Asn	His	Tyr	Tyr	Gly	Ser	Ser
					100	
					Asp	Tyr
						105
					Ala	Leu
					Asp	Asn
					Trp	Gly
						110
					Gln	

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 87
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 87

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Leu
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Tyr Asn Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gln Phe Gln Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 88
<211> 120
<212> PRT
<213> Artificial Sequence

50474-134W02_Sequence_Listing_6_14_16_ST25

<220>

<223> Synthetic construct

<400> 88

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 89

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 89

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1              5              10              15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Ile
      20              25              30
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
      35              40              45
Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
      50              55              60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
      65              70              75              80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gln Tyr Ser Pro Pro Tyr
      85              90              95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100              105

```

<210> 90
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 90

```

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1              5              10              15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20              25              30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35              40              45

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 91
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 91

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Leu
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65 70 75 80

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<220>
<223> Synthetic construct

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 93
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 93

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gln Phe Gln Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 94
<211> 120
<212> PRT
<213> Artificial Sequence

50474-134W02_Sequence_Listing_6_14_16_ST25

<220>

<223> Synthetic construct

<400> 94

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 95

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 95

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1              5              10              15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
      20              25              30
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
      35              40              45
Tyr Ser Gly Tyr Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
      50              55              60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65              70              75              80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gln Tyr Gln Pro Pro Tyr
      85              90              95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100              105

```

<210> 96
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 96

```

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1              5              10              15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
      20              25              30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35              40              45

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 97
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 97

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Leu
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

50474-134W02_Sequence_Listing_6_14_16_ST25

```

65              70              75              80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Gln Pro Pro Tyr
      85              90              95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100              105

<210>  98
<211> 120
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  98

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1              5              10              15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20              25              30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
      35              40              45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
      50              55              60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65              70              75              80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
      85              90              95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
      100              105              110

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 99
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 99

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Leu
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Gln Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 100
<211> 120
<212> PRT
<213> Artificial Sequence

50474-134W02_Sequence_Listing_6_14_16_ST25

<220>

<223> Synthetic construct

<400> 100

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 101

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 101

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1              5              10              15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Leu
      20              25              30
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
      35              40              45
Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
      50              55              60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65              70              75              80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Gln Pro Pro Tyr
      85              90              95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100              105

```

<210> 102
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 102

```

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1              5              10              15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20              25              30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35              40              45

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 103
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 103

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65 70 75 80

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

$\langle 210 \rangle$	104
$\langle 211 \rangle$	120
$\langle 212 \rangle$	PRT
$\langle 213 \rangle$	Artificial Sequence

<220>
<223> Synthetic construct

<400> 104

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 105
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 105

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Leu
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 106
<211> 120
<212> PRT
<213> Artificial Sequence

50474-134W02_Sequence_Listing_6_14_16_ST25

<220>

<223> Synthetic construct

<400> 106

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Pro Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 107

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 107

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1              5              10              15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Leu
      20              25              30
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
      35              40              45
Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
      50              55              60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
      65              70              75              80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
      85              90              95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100              105

```

<210> 108
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 108

```

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1              5              10              15
Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Ile Asp Leu Ser Ser Tyr
      20              25              30
Ala Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
      35              40              45

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Thr Ile Gly Thr Gly Gly Thr Pro Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

Gly Arg Phe Thr Ile Ser Lys Asp Ser Ser Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Phe Cys Ala
85 90 95

Arg Asp Met Tyr Thr Gly Ser Ile Tyr Tyr Asp Met Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 109
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 109

Asp Ala Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ser Ser Gln Ser Val Phe Asn Asn
20 25 30

Ala Gln Leu Ser Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Asp Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu

Asp Ala Asp Asn Ala Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210>	110
<211>	118
<212>	PRT
<213>	Artificial Sequence

<220>
<223> Synthetic construct

$\langle 400 \rangle$ 110

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Arg Pro Gly Val
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr His Tyr
20 25 30

Ala Met His Trp Val Lys Gln Ser His Thr Lys Ser Leu Glu Trp Ile
35 40 45

Gly Met Ile Ser Ser Ser Ser Gly Asn Thr Asn Phe Asn Gln Lys Phe
50 55 60

Met	Asp	Lys	Ala	Thr	Met	Thr	Val	Asp	Lys	Ser	Ser	Thr	Thr	Ala	Tyr
65					70					75					80

Leu Glu Leu Ala Arg Leu Thr Phe Gly Asp Ser Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Trp Ser Tyr Tyr Ala Leu Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

50474-134W02_Sequence_Listing_6_14_16_ST25

Thr Val Thr Val Ser Ser
115

<210> 111
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 111

Glu Asn Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys Ser Ala Asp Ser Ser Val Asp Tyr Ile
20 25 30

His Trp Tyr Gln Gln Lys Ser Asn Thr Ser Pro Lys Leu Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Gly Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Asn Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Phe Ala Thr Tyr Tyr Cys Phe Gln Gly Ser Gly Tyr Pro Leu Thr
85 90 95

Phe Gly Ser Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 112
<211> 118
<212> PRT
<213> Artificial Sequence

50474-134W02_Sequence_Listing_6_14_16_ST25

<220>

<223> Synthetic construct

<400> 112

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Val Ile His Trp Met Lys Gln Lys Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Ser Pro Tyr Asn Asp Tyr Thr Lys Tyr Asn Glu Lys Phe
50 55 60

Glu Gly Lys Ala Thr Leu Thr Ser Asp Lys Ser Ser Asn Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Arg Asp Tyr Tyr Gly Ser Ser Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Leu Thr Val Ser Ser
115

<210> 113

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 113

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1             5             10             15
Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Asp Tyr Met
      20             25             30
His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Lys Trp Ile Tyr
      35             40             45
Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
      50             55             60
Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Gly Ser Met Glu Ala Glu
65             70             75             80
Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Pro Thr
      85             90             95
Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
      100             105

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<210> 114
 <211> 977
 <212> PRT
 <213> Homo sapiens

<400> 114

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Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly Gln
1             5             10             15
Phe Ala Arg Thr Pro Arg Pro Ile Ile Phe Leu Gln Pro Pro Trp Thr
      20             25             30
Thr Val Phe Gln Gly Glu Arg Val Thr Leu Thr Cys Lys Gly Phe Arg
      35             40             45
Phe Tyr Ser Pro Gln Lys Thr Lys Trp Tyr His Arg Tyr Leu Gly Lys
      50             55             60

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Glu Ile Leu Arg Glu Thr Pro Asp Asn Ile Leu Glu Val Gln Glu Ser
65 70 75 80

Gly Glu Tyr Arg Cys Gln Ala Gln Gly Ser Pro Leu Ser Ser Pro Val
85 90 95

His Leu Asp Phe Ser Ser Ala Ser Leu Ile Leu Gln Ala Pro Leu Ser
100 105 110

Val Phe Glu Gly Asp Ser Val Val Leu Arg Cys Arg Ala Lys Ala Glu
115 120 125

Val Thr Leu Asn Asn Thr Ile Tyr Lys Asn Asp Asn Val Leu Ala Phe
130 135 140

Leu Asn Lys Arg Thr Asp Phe His Ile Pro His Ala Cys Leu Lys Asp
145 150 155 160

Asn Gly Ala Tyr Arg Cys Thr Gly Tyr Lys Glu Ser Cys Cys Pro Val
165 170 175

Ser Ser Asn Thr Val Lys Ile Gln Val Gln Glu Pro Phe Thr Arg Pro
180 185 190

Val Leu Arg Ala Ser Ser Phe Gln Pro Ile Ser Gly Asn Pro Val Thr
195 200 205

Leu Thr Cys Glu Thr Gln Leu Ser Leu Glu Arg Ser Asp Val Pro Leu
210 215 220

Arg Phe Arg Phe Phe Arg Asp Asp Gln Thr Leu Gly Leu Gly Trp Ser
225 230 235 240

Leu Ser Pro Asn Phe Gln Ile Thr Ala Met Trp Ser Lys Asp Ser Gly
245 250 255

50474-134W02_Sequence_Listing_6_14_16_ST25

Phe Tyr Trp Cys Lys Ala Ala Thr Met Pro Tyr Ser Val Ile Ser Asp
260 265 270

Ser Pro Arg Ser Trp Ile Gln Val Gln Ile Pro Ala Ser His Pro Val
275 280 285

Leu Thr Leu Ser Pro Glu Lys Ala Leu Asn Phe Glu Gly Thr Lys Val
290 295 300

Thr Leu His Cys Glu Thr Gln Glu Asp Ser Leu Arg Thr Leu Tyr Arg
305 310 315 320

Phe Tyr His Glu Gly Val Pro Leu Arg His Lys Ser Val Arg Cys Glu
325 330 335

Arg Gly Ala Ser Ile Ser Phe Ser Leu Thr Thr Glu Asn Ser Gly Asn
340 345 350

Tyr Tyr Cys Thr Ala Asp Asn Gly Leu Gly Ala Lys Pro Ser Lys Ala
355 360 365

Val Ser Leu Ser Val Thr Val Pro Val Ser His Pro Val Leu Asn Leu
370 375 380

Ser Ser Pro Glu Asp Leu Ile Phe Glu Gly Ala Lys Val Thr Leu His
385 390 395 400

Cys Glu Ala Gln Arg Gly Ser Leu Pro Ile Leu Tyr Gln Phe His His
405 410 415

Glu Gly Ala Ala Leu Glu Arg Arg Ser Ala Asn Ser Ala Gly Gly Val
420 425 430

Ala Ile Ser Phe Ser Leu Thr Ala Glu His Ser Gly Asn Tyr Tyr Cys
435 440 445

50474-134W02_Sequence_Listing_6_14_16_ST25

Thr Ala Asp Asn Gly Phe Gly Pro Gln Arg Ser Lys Ala Val Ser Leu
450 455 460

Ser Val Thr Val Pro Val Ser His Pro Val Leu Thr Leu Ser Ser Ala
465 470 475 480

Glu Ala Leu Thr Phe Glu Gly Ala Thr Val Thr Leu His Cys Glu Val
485 490 495

Gln Arg Gly Ser Pro Gln Ile Leu Tyr Gln Phe Tyr His Glu Asp Met
500 505 510

Pro Leu Trp Ser Ser Ser Thr Pro Ser Val Gly Arg Val Ser Phe Ser
515 520 525

Phe Ser Leu Thr Glu Gly His Ser Gly Asn Tyr Tyr Cys Thr Ala Asp
530 535 540

Asn Gly Phe Gly Pro Gln Arg Ser Glu Val Val Ser Leu Phe Val Thr
545 550 555 560

Val Pro Val Ser Arg Pro Ile Leu Thr Leu Arg Val Pro Arg Ala Gln
565 570 575

Ala Val Val Gly Asp Leu Leu Glu Leu His Cys Glu Ala Pro Arg Gly
580 585 590

Ser Pro Pro Ile Leu Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly
595 600 605

Ser Ser Ser Ala Pro Ser Gly Gly Glu Ala Ser Phe Asn Leu Ser Leu
610 615 620

Thr Ala Glu His Ser Gly Asn Tyr Ser Cys Glu Ala Asn Asn Gly Leu
625 630 635 640

50474-134W02_Sequence_Listing_6_14_16_ST25

Val Ala Gln His Ser Asp Thr Ile Ser Leu Ser Val Ile Val Pro Val
645 650 655

Ser Arg Pro Ile Leu Thr Phe Arg Ala Pro Arg Ala Gln Ala Val Val
660 665 670

Gly Asp Leu Leu Glu Leu His Cys Glu Ala Leu Arg Gly Ser Ser Pro
675 680 685

Ile Leu Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly Lys Ile Ser
690 695 700

Ala Pro Ser Gly Gly Gly Ala Ser Phe Asn Leu Ser Leu Thr Thr Glu
705 710 715 720

His Ser Gly Ile Tyr Ser Cys Glu Ala Asp Asn Gly Leu Glu Ala Gln
725 730 735

Arg Ser Glu Met Val Thr Leu Lys Val Ala Val Pro Val Ser Arg Pro
740 745 750

Val Leu Thr Leu Arg Ala Pro Gly Thr His Ala Ala Val Gly Asp Leu
755 760 765

Leu Glu Leu His Cys Glu Ala Leu Arg Gly Ser Pro Leu Ile Leu Tyr
770 775 780

Arg Phe Phe His Glu Asp Val Thr Leu Gly Asn Arg Ser Ser Pro Ser
785 790 795 800

Gly Gly Ala Ser Leu Asn Leu Ser Leu Thr Ala Glu His Ser Gly Asn
805 810 815

Tyr Ser Cys Glu Ala Asp Asn Gly Leu Gly Ala Gln Arg Ser Glu Thr
820 825 830

50474-134W02_Sequence_Listing_6_14_16_ST25

Val Thr Leu Tyr Ile Thr Gly Leu Thr Ala Asn Arg Ser Gly Pro Phe
835 840 845

Ala Thr Gly Val Ala Gly Gly Leu Leu Ser Ile Ala Gly Leu Ala Ala
850 855 860

Gly Ala Leu Leu Leu Tyr Cys Trp Leu Ser Arg Lys Ala Gly Arg Lys
865 870 875 880

Pro Ala Ser Asp Pro Ala Arg Ser Pro Ser Asp Ser Asp Ser Gln Glu
885 890 895

Pro Thr Tyr His Asn Val Pro Ala Trp Glu Glu Leu Gln Pro Val Tyr
900 905 910

Thr Asn Ala Asn Pro Arg Gly Glu Asn Val Val Tyr Ser Glu Val Arg
915 920 925

Ile Ile Gln Glu Lys Lys Lys His Ala Val Ala Ser Asp Pro Arg His
930 935 940

Leu Arg Asn Lys Gly Ser Pro Ile Ile Tyr Ser Glu Val Lys Val Ala
945 950 955 960

Ser Thr Pro Val Ser Gly Ser Leu Phe Leu Ala Ser Ser Ala Pro His
965 970 975

Arg

<210> 115

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 115

Ser Tyr Tyr Ile His

1 5

<210> 116

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 116

Trp Ile Tyr Pro Glu Asn Asp Asn Thr Lys Tyr Asn Glu Lys Phe Lys

1 5 10 15

Asp

<210> 117

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa is Tyr or Ala

<400> 117

Asp Gly Tyr Ser Arg Xaa Tyr Phe Asp Tyr

1 5 10

<210> 118

<211> 17

50474-134W02_Sequence_Listing_6_14_16_ST25

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 118

Lys	Ser	Ser	Gln	Ser	Leu	Leu	Asn	Ser	Arg	Thr	Arg	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 119

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 119

Trp	Thr	Ser	Thr	Arg	Lys	Ser
1				5		

<210> 120

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is Lys or Thr

<400> 120

Xaa	Gln	Ser	Phe	Ile	Leu	Arg	Thr
1				5			

50474-134W02_Sequence_Listing_6_14_16_ST25

<210> 121
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 121

Asp Gly Tyr Ser Arg Tyr Tyr Phe Asp Tyr
 1 5 10

<210> 122
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 122

Asp Gly Tyr Ser Arg Ala Tyr Phe Asp Tyr
 1 5 10

<210> 123
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 123

Lys Gln Ser Phe Ile Leu Arg Thr
 1 5

<210> 124
 <211> 8
 <212> PRT
 <213> Artificial Sequence

50474-134W02_Sequence_Listing_6_14_16_ST25

<220>

<223> Synthetic construct

<400> 124

Thr Gln Ser Phe Ile Leu Arg Thr
1 5

<210> 125

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 125

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Thr
20 25 30

<210> 126

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 126

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile Gly
1 5 10

<210> 127

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

50474-134W02_Sequence_Listing_6_14_16_ST25

<223> Synthetic construct

<400> 127

Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr Leu Glu
1 5 10 15

Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 128

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 128

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 129

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 129

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys
20

<210> 130

<211> 15

<212> PRT

<213> Artificial Sequence

50474-134W02_Sequence_Listing_6_14_16_ST25

<220>

<223> Synthetic construct

<400> 130

Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile	Tyr
1				5				10						15

<210> 131

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 131

Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr
1				5				10						15	

Leu	Thr	Ile	Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys
			20					25					30		

<210> 132

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 132

Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
1				5				10	

<210> 133

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 133

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Thr Ser Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Tyr Pro Glu Asn Asp Asn Thr Lys Tyr Asn Glu Lys Phe
50 55 60

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

Leu Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Tyr Ser Arg Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 134

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 134

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

50474-134W02_Sequence_Listing_6_14_16_ST25

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
20 25 30

Arg Thr Arg Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Lys Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Lys Gln
85 90 95

Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 135
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 135

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Thr Ser Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Trp Ile Tyr Pro Glu Asn Asp Asn Thr Lys Tyr Asn Glu Lys Phe
50 55 60

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

Leu Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Tyr Ser Arg Ala Tyr Phe Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 136
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 136

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
20 25 30

Arg Thr Arg Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Lys Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

50474-134W02_Sequence_Listing_6_14_16_ST25

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Lys Gln
85 90 95

Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 137
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 137

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Thr Ser Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Tyr Pro Glu Asn Asp Asn Thr Lys Tyr Asn Glu Lys Phe
50 55 60

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

Leu Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Tyr Ser Arg Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
100 105 110

50474-134W02_Sequence_Listing_6_14_16_ST25

Thr Leu Val Thr Val Ser Ser
115

<210> 138
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 138

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
20 25 30

Arg Thr Arg Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Lys Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Thr Gln
85 90 95

Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 139
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 139

Asn Tyr Tyr Ile His

1 5

<210> 140

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 140

Trp Ile Tyr Pro Gly Asp Gly Asn Thr Lys Tyr Asn Glu Lys Phe Lys

1 5 10 15

Gly

<210> 141

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 141

Asp Ser Tyr Ser Asn Tyr Tyr Phe Asp Tyr

1 5 10

<210> 142

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

50474-134W02_Sequence_Listing_6_14_16_ST25

<400> 142

Lys Ser Ser Gln Ser Leu Leu Asn Ser Arg Thr Arg Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 143

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 143

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 144

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 144

Thr Gln Ser Phe Ile Leu Arg Thr
1 5

<210> 145

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 145

50474-134W02_Sequence_Listing_6_14_16_ST25

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr
20 25 30

<210> 146
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 146

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile Gly
1 5 10

<210> 147
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 147

Arg Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr Leu Glu
1 5 10 15

Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 148
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

50474-134W02_Sequence_Listing_6_14_16_ST25

<400> 148

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 149

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 149

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys
20

<210> 150

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 150

Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
1 5 10 15

<210> 151

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 151

50474-134W02_Sequence_Listing_6_14_16_ST25

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
20 25 30

<210> 152
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 152

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1 5 10

<210> 153
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 153

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Tyr Pro Gly Asp Gly Asn Thr Lys Tyr Asn Glu Lys Phe
50 55 60

50474-134W02_Sequence_Listing_6_14_16_ST25

Lys Gly Arg Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Leu Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Ser Tyr Ser Asn Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 154
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 154

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
20 25 30

Arg Thr Arg Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Thr Gln
85 90 95

50474-134W02_Sequence_Listing_6_14_16_ST25

Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 155
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 155

Gly Tyr Thr Met Asn
 1 5

<210> 156
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<220>
 <221> MISC_FEATURE
 <222> (9)..(9)
 <223> Xaa is Ser or Thr

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is Asn or Ala

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa is Gln or Asp

<220>
 <221> MISC_FEATURE
 <222> (14)..(14)
 <223> Xaa is Lys or Ser

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<220>
 <221> MISC_FEATURE
 <222> (15)..(15)
 <223> Xaa is Val or Phe

<220>
 <221> MISC_FEATURE
 <222> (17)..(17)
 <223> Xaa is Gly or Asp

<400> 156

Leu Ile Asn Pro Tyr Lys Gly Val Xaa Thr Tyr Xaa Xaa Xaa Xaa Lys
 1 5 10 15

Xaa

<210> 157
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 157

Ser Gly Tyr Tyr Gly Asp Ser Asp Trp Tyr Phe Asp Val
 1 5 10

<210> 158
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 158

Arg Ala Ser Gln Asp Ile Arg Asn Tyr Leu Asn
 1 5 10

50474-134W02_Sequence_Listing_6_14_16_ST25

<210> 159
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 159

Tyr Thr Ser Arg Leu Glu Ser
 1 5

<210> 160
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 160

Gln Gln Gly Asn Thr Leu Pro Trp Thr
 1 5

<210> 161
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 161

Leu Ile Asn Pro Tyr Lys Gly Val Thr Thr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 162

50474-134W02_Sequence_Listing_6_14_16_ST25

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

<220>
 <223> Synthetic construct

<400> 162

Leu	Ile	Asn	Pro	Tyr	Lys	Gly	Val	Ser	Thr	Tyr	Asn	Gln	Lys	Phe	Lys
1				5					10					15	

Asp

<210> 163
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 163

Leu	Ile	Asn	Pro	Tyr	Lys	Gly	Val	Ser	Thr	Tyr	Ala	Asp	Ser	Val	Lys
1				5					10					15	

Gly

<210> 164
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 164

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly
1				5					10					15	

50474-134W02_Sequence_Listing_6_14_16_ST25

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ser Phe Thr
 20 25 30

<210> 165
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 165

Trp Val Arg Gln Ala Pro Gly Lys Asp Leu Glu Trp Val Ala
 1 5 10

<210> 166
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 166

Arg Phe Thr Ile Ser Val Asp Lys Ser Lys Asn Thr Ala Tyr Leu Gln
 1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
 20 25 30

<210> 167
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 167

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

50474-134W02_Sequence_Listing_6_14_16_ST25

1 5 10

<210> 168
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 168

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys
20

<210> 169
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 169

Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
1 5 10 15

<210> 170
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 170

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Thr
1 5 10 15

50474-134W02_Sequence_Listing_6_14_16_ST25

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys
 20 25 30

<210> 171
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 171

Phe Gly Gln Gly Thr Lys Leu Glu Leu Lys
 1 5 10

<210> 172
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 172

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ser Phe Thr Gly Tyr
 20 25 30

Thr Met Asn Trp Val Arg Gln Ala Pro Gly Lys Asp Leu Glu Trp Val
 35 40 45

Ala Leu Ile Asn Pro Tyr Lys Gly Val Ser Thr Tyr Asn Gln Lys Phe
 50 55 60

Lys Asp Arg Phe Thr Ile Ser Val Asp Lys Ser Lys Asn Thr Ala Tyr
 65 70 75 80

50474-134W02_Sequence_Listing_6_14_16_ST25

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Ser Gly Tyr Tyr Gly Asp Ser Asp Trp Tyr Phe Asp Val Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 173

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 173

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Thr Ser Arg Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gly Asn Thr Leu Pro Trp
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Leu Lys

100

105

<210> 174
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 174

Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr Gln Thr Pro Tyr Lys
 1 5 10 15

Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr Cys
 20 25

<210> 175
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 175

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Pro Ala Phe Met Ser
 1 5 10 15

<210> 176
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 176

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Gly Ser
 1 5 10 15

50474-134W02_Sequence_Listing_6_14_16_ST25

<210> 177
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 177

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met Asp
 1 5 10 15

<210> 178
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 178

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met Pro
 1 5 10 15

<210> 179
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 179

Ser Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr
 20 25 30

<210> 180

50474-134W02_Sequence_Listing_6_14_16_ST25

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 180

Phe Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr
 20 25 30

<210> 181
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 181

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Pro Leu Thr
 20 25 30

<210> 182
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 182

Trp Tyr Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu Gly
 1 5 10

50474-134W02_Sequence_Listing_6_14_16_ST25

<210> 183
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 183

Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu Met
 1 5 10 15

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser Asn
 20 25 30

<210> 184
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 184

Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu Lys
 1 5 10 15

Leu Ser Asp Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser Asn
 20 25 30

<210> 185
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 185

Ser Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1              5              10              15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20              25              30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35              40              45
Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
      50              55              60
Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
      65              70              75              80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
      85              90              95
Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
      100              105              110
Gly Thr Leu Val Thr Val Ser Ser
      115              120

```

<210> 186
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 186

```

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1              5              10              15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
      20              25              30

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 187

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 187

Phe Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu

50474-134W02_Sequence_Listing_6_14_16_ST25

65	70	75	80
Lys	Leu	Ser	Ser
	Val	Thr	Ala
	85	Ala	Asp
		Thr	90
		Ala	Val
		Tyr	Tyr
		Cys	Ser
		95	
Asn	His	Tyr	Tyr
	Gly	Ser	Ser
	100	Asp	Tyr
		Ala	Leu
		105	Asp
		Asn	Trp
		110	Gly
		Gln	
Gly	Thr	Leu	Val
	115	Thr	Val
		Ser	Ser
		120	
<210>	188		
<211>	107		
<212>	PRT		
<213>	Artificial Sequence		
<220>			
<223>	Synthetic construct		
<400>	188		
Asp	Ile	Gln	Met
1		5	Thr
			Gln
			Ser
			Pro
			Ser
			10
			Leu
			Ser
			Ala
			Ser
			Val
			15
Asp	Arg	Val	Thr
			20
			Ile
			Thr
			Cys
			Lys
			25
			Ala
			Ser
			Gln
			Asp
			Val
			30
			Ser
			Asn
			Ile
Val	Val	Trp	Phe
			35
			Gln
			Gln
			Lys
			40
			Pro
			Gly
			Lys
			Ser
			Pro
			45
			Lys
			Leu
			Leu
			Ile
Tyr	Ser	Ala	Ser
			50
			Tyr
			Arg
			55
			Tyr
			Thr
			Gly
			Val
			60
			Pro
			Ser
			Arg
			Phe
			Ser
			Gly
Ser	Gly	Ser	Gly
65			70
			Thr
			Asp
			Phe
			75
			Thr
			Leu
			Thr
			Ile
			Ser
			Ser
			Leu
			Gln
			80
			Pro
Glu	Asp	Phe	Ala
			85
			Thr
			Tyr
			Tyr
			Cys
			Gln
			90
			Gln
			His
			Tyr
			Ser
			Ser
			Pro
			95
			Tyr

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Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 189
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 189

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Pro Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 190

50474-134W02_Sequence_Listing_6_14_16_ST25

<211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 190

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
 20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 191
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 191

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1             5             10             15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
      20             25             30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35             40             45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
      50             55             60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
      65             70             75             80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
      85             90             95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
      100            105            110

Gly Thr Leu Val Thr Val Ser Ser
      115            120

```

<210> 192
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 192

```

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1             5             10             15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
      20             25             30

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 193
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 193

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Tyr Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu

50474-134W02_Sequence_Listing_6_14_16_ST25

65	70	75	80
Lys	Leu	Ser	Ser
	Val	Thr	Ala
	85	Ala	Asp
		Thr	90
		Ala	Val
		Tyr	Tyr
		Cys	Ser
		95	
Asn	His	Tyr	Tyr
	Gly	Ser	Ser
	100	Asp	Tyr
		105	Ala
		Leu	Asp
		Asn	Trp
		110	Gly
			Gln
Gly	Thr	Leu	Val
	115	Thr	Val
		Ser	Ser
		120	
<210>	194		
<211>	107		
<212>	PRT		
<213>	Artificial Sequence		
<220>			
<223>	Synthetic construct		
<400>	194		
Asp	Ile	Gln	Met
1		5	Thr
			Gln
			Ser
			Pro
			Ser
			10
			Leu
			Ser
			Ala
			Ser
			Val
			15
Asp	Arg	Val	Thr
		20	Ile
			Thr
			Cys
			Lys
			25
			Ala
			Ser
			Gln
			Asp
			Val
			30
			Ser
			Asn
			Ile
Val	Val	Trp	Phe
		35	Gln
			Gln
			Lys
			40
			Pro
			Gly
			Lys
			Ser
			Pro
			45
			Lys
			Leu
			Leu
			Ile
Tyr	Ser	Ala	Ser
		50	Tyr
			Arg
			Tyr
			55
			Thr
			Gly
			Val
			Pro
			60
			Ser
			Arg
			Phe
			Ser
			Gly
Ser	Gly	Ser	Gly
65			Thr
			Asp
			70
			Phe
			Thr
			Leu
			Thr
			75
			Ile
			Ser
			Ser
			Leu
			Gln
			80
			Pro
Glu	Asp	Phe	Ala
			85
			Thr
			Tyr
			Tyr
			Cys
			Gln
			90
			Gln
			His
			Tyr
			Ser
			Ser
			Pro
			95
			Tyr

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Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 195
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 195

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Pro Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 196

50474-134W02_Sequence_Listing_6_14_16_ST25

<211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 196

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
 20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 197
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 197

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

50474-134W02_Sequence_Listing_6_14_16_ST25

```

1           5           10           15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20           25           30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35           40           45
Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Gly
      50           55           60
Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
      65           70           75           80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
      85           90           95
Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
      100           105           110
Gly Thr Leu Val Thr Val Ser Ser
      115           120

```

<210> 198
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 198

```

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1           5           10           15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
      20           25           30

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 199

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 199

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Asp Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu

50474-134W02_Sequence_Listing_6_14_16_ST25

65	70	75	80
Lys	Leu	Ser	Ser
	Val	Thr	Ala
	85	Ala	Asp
		Thr	90
		Ala	Val
		Tyr	Tyr
		Cys	Ser
		95	
Asn	His	Tyr	Tyr
	Gly	Ser	Ser
	100	Asp	Tyr
		Ala	Leu
		105	Asp
		Asn	Trp
		110	Gly
		Gln	
Gly	Thr	Leu	Val
	115	Thr	Val
		Ser	Ser
		120	
<210>	200		
<211>	107		
<212>	PRT		
<213>	Artificial Sequence		
<220>			
<223>	Synthetic construct		
<400>	200		
Asp	Ile	Gln	Met
	Thr	Gln	Ser
	5	Pro	Ser
		10	Ser
		Leu	Ser
		Ala	Ser
		Val	Gly
		15	
Asp	Arg	Val	Thr
	20	Ile	Thr
		Cys	Lys
		25	Ala
		Ser	Gln
		Asp	Val
		30	Ser
		Asn	Ile
Val	Val	Trp	Phe
	35	Gln	Gln
		Lys	Pro
		40	Gly
		Lys	Ser
		Pro	Lys
		45	Leu
		Leu	Ile
Tyr	Ser	Ala	Ser
	50	Tyr	Arg
		55	Tyr
		Thr	Gly
		Val	Pro
		60	Ser
		Arg	Phe
		Ser	Gly
Ser	Gly	Ser	Gly
	65	Thr	Asp
		70	Phe
		Thr	Leu
		75	Thr
		Ile	Ser
		Ser	Ser
		Leu	Gln
		80	Pro
Glu	Asp	Phe	Ala
	85	Thr	Tyr
		Tyr	Cys
		Gln	Gln
		90	His
		Tyr	Ser
		Ser	Ser
		Pro	Tyr
		95	

50474-134W02_Sequence_Listing_6_14_16_ST25

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 201
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 201

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Pro Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 202

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<211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 202

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
 20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 203
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 203

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

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```

1              5              10              15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20              25              30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35              40              45
Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
      50              55              60
Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
      65              70              75              80
Met Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
      85              90              95
Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
      100              105              110
Gly Thr Leu Val Thr Val Ser Ser
      115              120

```

<210> 204
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 204

```

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1              5              10              15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
      20              25              30

```

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Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 205
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 205

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu

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65	70	75	80
Lys	Leu	Ser	Asp
Val	Thr	Ala	Ala
85	90	95	
Asn	His	Tyr	Tyr
Gly	Ser	Ser	Asp
100	105	110	
Asn	Trp	Gly	Gln
115	120		
Gly	Thr	Leu	Val
115	120		
<210>	206		
<211>	107		
<212>	PRT		
<213>	Artificial Sequence		
<220>			
<223>	Synthetic construct		
<400>	206		
Asp	Ile	Gln	Met
1	5	10	15
Thr	Gln	Ser	Pro
5	10	15	
Ser	Leu	Ser	Ala
10	15		
Ser	Val	Gly	
15			
Asp	Arg	Val	Thr
20	25	30	
Ile	Thr	Cys	Lys
25	30		
Ala	Ser	Gln	Asp
30			
Val	Ser	Asn	Ile
30			
Val	Val	Trp	Phe
35	40	45	
Gln	Gln	Lys	Pro
40	45		
Gly	Lys	Ser	Pro
45			
Lys	Leu	Leu	Ile
45			
Tyr	Ser	Ala	Ser
50	55	60	
Arg	Tyr	Thr	Gly
55	60		
Val	Pro	Ser	Arg
60			
Phe	Ser	Gly	
60			
Ser	Gly	Ser	Gly
65	70	75	80
Thr	Asp	Phe	Thr
70	75		
Leu	Thr	Ile	Ser
75			
Ser	Ser	Leu	Gln
80			
Pro			
80			
Glu	Asp	Phe	Ala
85	90	95	
Thr	Tyr	Tyr	Cys
85	90	95	
Gln	Gln	His	Tyr
90			
Ser	Ser	Pro	Tyr
95			

50474-134W02_Sequence_Listing_6_14_16_ST25

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 207

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 207

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Pro Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 208

50474-134W02_Sequence_Listing_6_14_16_ST25

<211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 208

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
 20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 209
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 209

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

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```

1              5              10              15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
      20              25              30
Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
      35              40              45
Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
      50              55              60
Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
      65              70              75              80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
      85              90              95
Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
      100              105              110
Gly Thr Leu Val Thr Val Ser Ser
      115              120

```

<210> 210
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 210

```

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1              5              10              15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Leu
      20              25              30

```

50474-134W02_Sequence_Listing_6_14_16_ST25

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 211

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 211

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu

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65	70	75	80
Lys	Leu	Ser	Ser
	Val	Thr	Ala
	85	Ala	Asp
		Thr	90
		Ala	Val
		Tyr	Tyr
		Cys	Ser
		95	
Asn	His	Tyr	Tyr
	Gly	Ser	Ser
	100	Asp	Tyr
		Ala	Leu
		105	Asp
		Asn	Trp
		110	Gly
			Gln
Gly	Thr	Leu	Val
	115	Thr	Val
		Ser	Ser
		120	
<210>	212		
<211>	107		
<212>	PRT		
<213>	Artificial Sequence		
<220>			
<223>	Synthetic construct		
<400>	212		
Asp	Ile	Gln	Met
1		5	Thr
			Gln
			Ser
			Pro
			Ser
			10
			Leu
			Ser
			Ala
			Ser
			Val
			15
Asp	Arg	Val	Thr
		20	Ile
			Thr
			Cys
			Lys
			Ala
			25
			Ser
			Gln
			Asp
			Val
			30
			Ser
			Asn
			Leu
Val	Val	Trp	Phe
		35	Gln
			Gln
			Lys
			Pro
			40
			Gly
			Lys
			Ser
			Pro
			45
			Lys
			Leu
			Leu
			Ile
Tyr	Ser	Gly	Ser
		50	Tyr
			Arg
			Tyr
			55
			Ser
			Gly
			Val
			Pro
			60
			Ser
			Arg
			Phe
			Ser
			Gly
Ser	Gly	Ser	Gly
65			Thr
			Asp
			70
			Phe
			Thr
			Leu
			Thr
			75
			Ile
			Ser
			Ser
			Leu
			Gln
			80
			Pro
Glu	Asp	Phe	Ala
			Thr
			85
			Tyr
			Tyr
			Cys
			Gln
			90
			Gln
			His
			Tyr
			Ser
			Pro
			95
			Pro
			Tyr

50474-134W02_Sequence_Listing_6_14_16_ST25

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 213
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 213

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Pro Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 214

50474-134W02_Sequence_Listing_6_14_16_ST25

<211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 214

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Leu
 20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 215
 <211> 975
 <212> PRT
 <213> Macaca fascicularis

<400> 215

Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly Gln
 1 5 10 15

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Phe Val Arg Thr Tyr Lys Ser His Phe Leu Gln Pro Pro Trp Thr Thr
20 25 30

Val Phe Arg Gly Glu Arg Val Asn Leu Thr Cys Lys Gly Phe Gly Phe
35 40 45

Tyr Ser Ser Gln Lys Thr Lys Trp Tyr Tyr Arg His Leu Gly Lys Glu
50 55 60

Ile Ser Arg Glu Thr Gln Lys Asn Thr Leu Glu Val Gln Glu Ser Gly
65 70 75 80

Glu Tyr Arg Cys Gln Ala Gln Gly Ser Pro Leu Ser Ser Pro Val Ser
85 90 95

Leu Asp Phe Ser Ser Ala Ser Leu Ile Leu Gln Ala Pro Leu Ser Val
100 105 110

Phe Glu Gly Asp Ser Val Val Leu Arg Cys Arg Ala Lys Ala Glu Val
115 120 125

Thr Leu Lys Thr Thr Ile Tyr Lys Asn Glu Asn Val Leu Ala Phe Leu
130 135 140

Asn Lys Ser Thr Asp Phe His Ile Ser His Ala Ser Leu Lys Asp Asn
145 150 155 160

Gly Ala Tyr Arg Cys Thr Gly Tyr Lys Glu Thr Cys Cys Leu Val Ser
165 170 175

Ser Asn Thr Val Lys Ile Gln Val Gln Glu Ser Phe Thr Arg Pro Val
180 185 190

Leu Arg Val Ser Ser Phe Gln Pro Ile Ser Gly Ser Pro Val Thr Leu
195 200 205

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Thr	Cys	Glu	Thr	Gln	Leu	Ser	Leu	Glu	Arg	Ser	Asp	Val	Pro	Leu	Gln
210						215					220				
Phe	Cys	Phe	Phe	Arg	Asn	Asp	Gln	Met	Leu	Gly	Ser	Gly	Cys	Ser	Leu
225					230					235					240
Ser	Pro	Lys	Phe	Arg	Ile	Thr	Ala	Met	Trp	Ser	Lys	Asp	Ser	Gly	Ser
				245					250					255	
Tyr	Trp	Cys	Lys	Ala	Ala	Thr	Met	Cys	Tyr	Asp	Thr	Thr	Ser	Asn	Ser
			260					265						270	
Leu	Arg	Ser	Trp	Ile	Gln	Val	Leu	Ile	Pro	Ala	Ser	His	Pro	Val	Leu
		275					280					285			
Thr	Leu	Ser	Pro	Glu	Lys	Ala	Leu	Asn	Phe	Glu	Gly	Thr	Lys	Val	Lys
	290					295					300				
Leu	His	Cys	Glu	Thr	Gln	Glu	Asp	Ser	Leu	Arg	Thr	Leu	Tyr	Lys	Phe
305					310					315					320
Tyr	His	Asp	Gly	Val	Pro	Leu	Arg	Tyr	Lys	Ser	Val	Arg	Cys	Glu	Lys
				325					330					335	
Gly	Ala	Ser	Ile	Ser	Phe	Ser	Leu	Thr	Thr	Glu	His	Ser	Gly	Asn	Tyr
			340					345					350		
Tyr	Cys	Thr	Ala	Asp	Asn	Gly	His	Gly	Ala	Lys	Pro	Ser	Glu	Ala	Val
		355					360					365			
Ser	Leu	Ser	Val	Thr	Val	Pro	Val	Ser	Arg	Pro	Val	Leu	Thr	Leu	Ser
	370					375					380				
Ser	Ala	Glu	Asp	Leu	Ile	Ser	Glu	Gly	Ala	Lys	Leu	Thr	Leu	His	Cys
385					390					395					400

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Glu Ala Gln Arg Gly Ser Leu Pro Ile Val Tyr Gln Phe His His Glu
405 410 415

Asn Ala Ser Leu Gly Asn Arg Ser Ala His Ser Ala Gly Gly Val Ala
420 425 430

Ile Ser Phe Ser Leu Thr Ala Asp His Ser Gly Asn Tyr Tyr Cys Thr
435 440 445

Ala Asn Asn Gly Phe Gly Pro Gln Arg Ser Glu Ala Val Ser Leu Ser
450 455 460

Ile Thr Val Pro Val Ser Arg Pro Val Leu Thr Leu Ser Ser Ala Glu
465 470 475 480

Ala Leu Thr Phe Glu Gly Ala Thr Val Thr Leu Tyr Cys Glu Val Gln
485 490 495

Arg Gly Ser Pro Arg Ile Leu Tyr Gln Phe Tyr His Glu Asp Val Pro
500 505 510

Leu Gly Ser Asn Ser Thr Pro Ser Val Gly Lys Val Ser Phe Ser Phe
515 520 525

Ser Leu Thr Ala Ala His Ser Gly Asn Tyr Tyr Cys Thr Ala Asp Asn
530 535 540

Gly Phe Gly Pro Gln Arg Ser Glu Ala Val Ser Leu Phe Val Thr Val
545 550 555 560

Pro Val Ser Arg Pro Ile Leu Thr Leu Arg Val Pro Arg Ala Gln Ala
565 570 575

Val Val Gly Asp Leu Leu Glu Leu Arg Cys Glu Ala Leu Arg Gly Ser
580 585 590

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Pro Pro Ile Met Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly Ser
595 600 605

Ser Ser Val Pro Ser Gly Gly Glu Ala Ser Phe Asn Leu Ser Leu Thr
610 615 620

Ala Glu His Ser Gly Asn Tyr Ser Cys Glu Ala Asn Asn Gly Leu Val
625 630 635 640

Ala Gln His Ser Asp Thr Ile Ser Leu Ser Val Ile Val Pro Val Ser
645 650 655

Arg Pro Ile Leu Thr Phe Arg Ala Pro Arg Ala Gln Ala Val Val Gly
660 665 670

Asp Leu Leu Glu Leu His Cys Glu Ala Leu Arg Gly Ser Ser Pro Ile
675 680 685

Leu Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly Lys Ile Ser Ala
690 695 700

Pro Ser Gly Gly Gly Ala Tyr Phe Asn Leu Ser Leu Thr Thr Glu His
705 710 715 720

Ser Gly Ile Tyr Ser Cys Glu Ala Asp Asn Gly Leu Glu Ala Gln Arg
725 730 735

Ser Glu Met Val Thr Leu Lys Val Ala Val Pro Val Ser Arg Pro Val
740 745 750

Leu Thr Leu Arg Ala Pro Arg Ala Gln Val Ala Val Gly Asp Leu Leu
755 760 765

Glu Leu His Cys Glu Ala Leu Arg Gly Ser Pro Leu Ile Leu Tyr Gln
770 775 780

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Phe Tyr His Glu Asp Val Thr Leu Gly Asn Ser Ser Ala Leu Ser Gly
785 790 795 800

Gly Ala Phe Phe Asn Leu Ser Leu Thr Ala Glu His Gly Asn Tyr Ser
805 810 815

Cys Glu Ala Asp Asn Gly Leu Gly Ala Gln Arg Ser Glu Thr Val Thr
820 825 830

Leu Tyr Leu Thr Gly Leu Thr Glu Asn Arg Ser Gly Pro Val Ala Thr
835 840 845

Gly Val Thr Gly Gly Leu Leu Ser Leu Ala Gly Leu Ala Ala Val Ala
850 855 860

Leu Leu Leu Tyr Cys Trp Leu Ser Arg Lys Ala Gly Arg Glu Pro Ala
865 870 875 880

Ser Asp Pro Cys Arg Ser Pro Ser Asp Leu Asp Ser Gln Glu Pro Thr
885 890 895

Tyr His Asn Val Pro Ala Trp Glu Glu Leu Gln Pro Val Tyr Ser Asn
900 905 910

Val Asn Pro Arg Gly Glu Asn Val Val Tyr Ser Glu Val Arg Ile Ile
915 920 925

Arg Glu Lys Lys Lys His Ala Val Ala Ser Asn Pro Arg His Leu Arg
930 935 940

Asn Lys Gly Ser Cys Ile Ile Tyr Ser Glu Val Lys Val Ala Ser Thr
945 950 955 960

Pro Ala Ser Arg Cys Leu Phe Leu Ala Ser Ser Ala Pro His Arg
965 970 975