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SEQUENCE LISTING

<110> ZYMEWORKS INC.

<120> STABILIZED TCR CONSTRUCTS AND METHODS OF USE

<130> V817599W0

<150> US 63/128,601

<151> 2020-12-21

<160> 43

<170> PatentIn version 3.5

<210> 1

<211> 94

<212> PRT

<213> Artificial Sequence

<220>

<223> Human TCR alpha chain constant region (TRAC)

<400> 1

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

Ser	Ser	Asp	Lys	Ser	Val	Cys	Leu	Phe	Thr	Asp	Phe	Asp	Ser	Gln	Thr
			20					25					30		

Asn	Val	Ser	Gln	Ser	Lys	Asp	Ser	Asp	Val	Tyr	Ile	Thr	Asp	Lys	Thr
		35					40					45			

Val	Leu	Asp	Met	Arg	Ser	Met	Asp	Phe	Lys	Ser	Asn	Ser	Ala	Val	Ala
	50					55					60				

Trp	Ser	Asn	Lys	Ser	Asp	Phe	Ala	Cys	Ala	Asn	Ala	Phe	Asn	Asn	Ser
65					70					75					80

Ile	Ile	Pro	Glu	Asp	Thr	Phe	Phe	Pro	Ser	Pro	Glu	Ser	Ser
				85					90				

<210> 2

<211> 130

<212> PRT

<213> Artificial Sequence

<220>

<223> Human TCR beta chain constant region (TRBC1)

<400> 2

Glu Asp Leu Asn Lys Val Phe Pro Pro Glu Val Ala Val Phe Glu Pro
1 5 10 15

Ser Glu Ala Glu Ile Ser His Thr Gln Lys Ala Thr Leu Val Cys Leu
20 25 30

Ala Thr Gly Phe Phe Pro Asp His Val Glu Leu Ser Trp Trp Val Asn
35 40 45

Gly Lys Glu Val His Ser Gly Val Ser Thr Asp Pro Gln Pro Leu Lys
50 55 60

Glu Gln Pro Ala Leu Asn Asp Ser Arg Tyr Cys Leu Ser Ser Arg Leu
65 70 75 80

Arg Val Ser Ala Thr Phe Trp Gln Asn Pro Arg Asn His Phe Arg Cys
85 90 95

Gln Val Gln Phe Tyr Gly Leu Ser Glu Asn Asp Glu Trp Thr Gln Asp
100 105 110

Arg Ala Lys Pro Val Thr Gln Ile Val Ser Ala Glu Ala Trp Gly Arg
115 120 125

Ala Asp
130

<210> 3

<211> 130

<212> PRT

<213> Artificial Sequence

<220>

<223> Human TCR beta chain constant region (TRBC2)

<400> 3

Glu Asp Leu Lys Asn Val Phe Pro Pro Glu Val Ala Val Phe Glu Pro

1	5	10	15
Ser	Glu	Ala	Glu
	20	Ile	Ser
His	Thr	Gln	Lys
	25	Ala	Thr
Leu	Val	Cys	Leu
	30		
Ala	Thr	Gly	Phe
	35	Tyr	Pro
Asp	His	Val	Glu
	40	Leu	Ser
Trp	Trp	Val	Asn
	45		
Gly	Lys	Glu	Val
	50	His	Ser
Gly	Val	Ser	Thr
	55	Asp	Pro
Gln	Pro	Leu	Lys
	60		
Glu	Gln	Pro	Ala
	65	Leu	Asn
Asp	Ser	Arg	Tyr
	70	Cys	Leu
Ser	Ser	Arg	Leu
	75		80
Arg	Val	Ser	Ala
	85	Thr	Phe
Trp	Gln	Asn	Pro
	90	Arg	Asn
His	Phe	Arg	Cys
	95		
Gln	Val	Gln	Phe
	100	Tyr	Gly
Leu	Ser	Glu	Asn
	105	Asp	Glu
Trp	Thr	Gln	Asp
	110		
Arg	Ala	Lys	Pro
	115	Val	Thr
Gln	Ile	Val	Ser
	120	Ala	Glu
Ala	Trp	Gly	Arg
	125		
Ala	Asp		
	130		

<210> 4
 <211> 95
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<220>
 <223> Human TCR alpha chain constant region (TRAC) including the
 cysteine residue at position TRAC/128

<400> 4

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

Ser	Ser	Asp	Lys	Ser	Val	Cys	Leu	Phe	Thr	Asp	Phe	Asp	Ser	Gln	Thr
		20						25					30		

Asn Val Ser Gln Ser Lys Asp Ser Asp Val Tyr Ile Thr Asp Lys Thr
 35 40 45

Val Leu Asp Met Arg Ser Met Asp Phe Lys Ser Asn Ser Ala Val Ala
 50 55 60

Trp Ser Asn Lys Ser Asp Phe Ala Cys Ala Asn Ala Phe Asn Asn Ser
 65 70 75 80

Ile Ile Pro Glu Asp Thr Phe Phe Pro Ser Pro Glu Ser Ser Cys
 85 90 95

<210> 5
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> TCRalpha hinge sequence

<400> 5

Glu Ser Ser Cys Asp Val Lys Leu Val Glu Lys Ser Phe Glu Thr
 1 5 10 15

<210> 6
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> TCRbeta hinge sequence

<400> 6

Asp Cys Gly Phe Thr Ser
 1 5

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

<220>
 <223> TCRgamma hinge sequence

<400> 7

Asp	Val	Ile	Thr	Met	Asp	Pro	Lys	Asp	Asn	Cys	Ser	Lys	Asp	Ala	Asn
1				5					10					15	

<210> 8

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> TCRdelta hinge sequence

<400> 8

Asp	His	Val	Lys	Pro	Lys	Glu	Thr	Glu	Asn	Thr	Lys	Gln	Pro	Ser	Lys
1				5					10					15	

Ser	Cys	His	Lys	Pro	Lys
			20		

<210> 9

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> IgG1 hinge sequence

<400> 9

Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro
1				5					10					15

<210> 10

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> IgG2 hinge sequence

<400> 10

Glu	Arg	Lys	Cys	Cys	Val	Glu	Cys	Pro	Pro	Cys	Pro
1				5					10		

<210> 11

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

<220>
 <223> IgG3-H1 hinge sequence

<400> 11

Glu	Leu	Lys	Thr	Pro	Leu	Gly	Asp	Thr	Thr	His	Thr	Cys	Pro	Arg	Cys
1				5					10					15	

Pro

<210> 12
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> IgG3-H2, -H3 & -H4 hinge sequence

<400> 12

Glu	Pro	Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro
1				5					10					15

<210> 13
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> IgG4 hinge sequence

<400> 13

Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Ser	Cys	Pro
1				5					10		

<210> 14
 <211> 6
 <212> PRT
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<220>
 <223> IgA2 hinge sequence

<400> 14

Val Pro Pro Pro Pro Pro
1 5

<210> 15

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> IgG1 full hinge sequence

<400> 15

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

Pro Glu Leu Leu Gly Gly
20

<210> 16

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> IgG1 upper hinge sequence

<400> 16

Glu Pro Lys Ser Cys Asp Lys Thr His Thr
1 5 10

<210> 17

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> IgG1 core hinge sequence

<400> 17

Cys Pro Pro Cys Pro
1 5

<210> 18

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

<220>
 <223> IgG1 lower hinge sequence

<400> 18

Ala Pro Glu Leu Leu Gly Gly
 1 5

<210> 19
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> IgG1 partial hinge sequence

<400> 19

Glu Pro Lys Ser Cys
 1 5

<210> 20
 <211> 217
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Human IgG1 Fc sequence 231-447 (EU-numbering)

<400> 20

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

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
 20 25 30

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
 35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 50 55 60

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
85 90 95

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
115 120 125

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
165 170 175

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215

<210> 21

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> IgG1 partial hinge sequence

<400> 21

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
1 5 10 15

<210> 22
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Signal sequence

<400> 22

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
 1 5 10 15

Leu Trp Ala Pro Ala Arg Gly
 20

<210> 23
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> NY-ES01 peptide

<400> 23

Ser Leu Leu Met Trp Ile Thr Gln Cys
 1 5

<210> 24
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> gp100 peptide

<400> 24

Tyr Leu Glu Pro Gly Pro Val Thr Ala
 1 5

<210> 25
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>

<223> anti-gp100 CDR2a

<400> 25

Ile Arg Ser Asn Glu Arg Glu
1 5

<210> 26

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-gp100 CDR3a

<400> 26

Ala Thr Asp Gly Ser Thr Pro Met Gln
1 5

<210> 27

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-gp100 CDR2b

<400> 27

Ser Trp Ala Gln Gly Asp
1 5

<210> 28

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-gp100 CDR3b

<400> 28

Ala Ser Ser Trp Gly Ala Pro Tyr
1 5

<210> 29

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-gp100 CDR3a

<400> 29

Ala Thr Asp Gly Asp Thr Pro Leu Val
1 5

<210> 30

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-gp100 CDR3b

<400> 30

Ala Ser Ser His Gly Ala Pro Tyr
1 5

<210> 31

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-gp100 CDR2b

<400> 31

Ser Trp Gly Thr Gly Asp
1 5

<210> 32

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-gp100 CDR2b

<400> 32

Ser Trp Ala Val Gly Asn
1 5

<210> 33
 <211> 8
 <212> PRT
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<220>
 <223> anti-gp100 CDR3b

<400> 33

Ala Ser Ser Ile Gly Gly Pro Tyr
 1 5

<210> 34
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> anti-NY-ESO1 CDR2a

<400> 34

Ile Thr Pro Trp Gln Arg Glu
 1 5

<210> 35
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> anti-NY-ESO1 CDR3a

<400> 35

Ala Val Arg Pro Leu Leu Asp Gly Thr Tyr Ile Pro Thr
 1 5 10

<210> 36
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> anti-NY-ESO1 CDR2b

<400> 36

Ser Val Ala Ile Gln Thr

1

5

<210> 37
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> anti-NY-ES01 CDR3b

<400> 37

Ala Ser Ser Tyr Leu Gly Asn Thr Gly Glu Leu Phe
 1 5 10

<210> 38
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> anti-NY-ES01 CDR2a

<400> 38

Ile Gln Ser Ser Gln Arg Glu
 1 5

<210> 39
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> anti-NY-ES01 CDR3a

<400> 39

Ala Val Arg His Thr Ser Asn Gly Tyr Phe Pro Pro Thr
 1 5 10

<210> 40
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> anti-NY-ES01 CDR2b

<400> 40

Ser Val Gly Ala Gly Thr
1 5

<210> 41

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-NY-ES01 CDR2a

<400> 41

Ile Ser Pro Trp Gln Arg Glu
1 5

<210> 42

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> anti-NY-ES01 CDR3b

<400> 42

Ala Ser Ser Tyr Val Gly Asp Thr Gly Glu Leu Phe
1 5 10

<210> 43

<211> 130

<212> PRT

<213> Artificial Sequence

<220>

<223> Human TCR beta chain constant region (TRBC1) including Cys -> Ala
mutation at position 85.1

<400> 43

Glu Asp Leu Asn Lys Val Phe Pro Pro Glu Val Ala Val Phe Glu Pro
1 5 10 15

Ser Glu Ala Glu Ile Ser His Thr Gln Lys Ala Thr Leu Val Cys Leu
20 25 30

Ala Thr Gly Phe Phe Pro Asp His Val Glu Leu Ser Trp Trp Val Asn
 35 40 45

Gly Lys Glu Val His Ser Gly Val Ser Thr Asp Pro Gln Pro Leu Lys
 50 55 60

Glu Gln Pro Ala Leu Asn Asp Ser Arg Tyr Ala Leu Ser Ser Arg Leu
 65 70 75 80

Arg Val Ser Ala Thr Phe Trp Gln Asn Pro Arg Asn His Phe Arg Cys
 85 90 95

Gln Val Gln Phe Tyr Gly Leu Ser Glu Asn Asp Glu Trp Thr Gln Asp
 100 105 110

Arg Ala Lys Pro Val Thr Gln Ile Val Ser Ala Glu Ala Trp Gly Arg
 115 120 125

Ala Asp
 130