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<110> ONO PHARMACEUTICAL CO., LTD.
TOHOKU UNIVERSITY

<120> HER2-targeting drug

<130> PON-9001W0

<150> JP 2020-198044

<151> 2020-11-30

<150> JP 2021-110912

<151> 2021-07-02

<160> 206

<170> PatentIn version 3.5

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<213> Homo sapiens

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Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val
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Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu
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Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr
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Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn
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205

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Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln
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Ala Val Val Gly Ile Leu Leu Val Val Val Leu Gly Val Val Phe Gly

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665

670

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

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

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gacattgtgc tcaccaatc tccagcttct ttggctgtgt ctctaggtoa gagagccacc	120
atctcctgca gagccagtga aagtgttgaa tattatggca caactttaat gcagtggtag	180
caacagaaac caggacagcc acccaaactc ctcatctatg ctgcatccaa agtagaatct	240
ggggtccctg ccaggtttag tggcagtggg tctgggactg acttcagcct caacatccat	300
cctgtggagg aggatgatgt tgcaatgtat ttctgtcagc aaagtaggaa ggttccgctc	360
acgttcgggtg ctgggaccaa gctggagctg aaacgggctg atgctgcacc aactgtatcc	420
atcttccac catccagtga gcagttaaca tctggagggtg cctcagtcgt gtgcttcttg	480
aacaacttct accccaaaga catcaatgtc aagtggaaga ttgatggcag tgaacgacaa	540
aatggcgtcc tgaacagttg gactgatcag gacagcaaag acagcaccta cagcatgagc	600
agcaccctca cgttgaccaa ggacgagtat gaacgacata acagctatac ctgtgaggcc	660
actcacaaga catcaacttc acccattgtc aagagcttca acaggaatga gtgttag	717

<210> 12

<211> 1380

<212> DNA

<213> Artificial Sequence

<220>

<223> H2Mab-250 Heavy chain DNA

<400> 12

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gtgcagctgg tggagtctgg gggaggctta gtgcagccag gagggtcctt gaaactctcc	120
tgtgcagcct ctggattcac tttcagtaac tatggcatgt cttgggttcg ccagactcca	180
gacaggaggc tggagttggt cgcaaccatt aataataatg gtggtggtac ctattatcca	240
gacagtgtga agggccggtt caccatctcc agagacaatg ccaagaacac cctgtacctg	300
caaatgagca gtctgaagtc tgaggacaca gccatgtact actgcacaag ccccggccta	360
ctatgggatg cctggggcgc agggaccacg gtcaccgtct cctcagccaa aacgacaccc	420
ccatctgtct atccactggc ccctggatct gctgccccaa ctaactccat ggtgaccctg	480
ggatgcctgg tcaagggtta tttccctgag ccagtacag tgacctggaa ctctggatcc	540
ctgtccagcg gtgtgcacac cttcccagct gtccctgcagt ctgacctcta cactctgagc	600
agctcagtga ctgtcccctc cagcacctgg cccagcgaga ccgtcacctg caacgttgcc	660
cacccggcca gcagcaccaa ggtggacaag aaaattgtgc ccagggattg tggttgtaag	720

ccttgcatat gtacagtccc agaagtatca totgtottca ttttcccccc aaagcccaag	780
gatgtgctca ccattactot gactcctaag gtcacgtgtg ttgtggtaga catcagcaag	840
gatgatcccg aggtccagtt cagctggttt gtagatgatg tggagggtgca cacagctcag	900
acgcaacccc gggaggagca gtccaacagc actttccgct cagtcagtga acttcccac	960
atgcaccagg actggctcaa tggcaaggag ttcaaatgca gggccaacag tgcagctttc	1020
cctgccccca tcgagaaaac catctccaaa accaaaggca gaccgaaggc tccacagggt	1080
tacaccattc cacctcccaa ggagcagatg gccaaaggata aagtcagtct gacctgcatg	1140
ataacagact ttttccctga agacattact gtggagtggc agtggaatgg gcagccagcg	1200
gagaactaca agaacactca gcccatcatg gacacagatg gctcttactt cgtctacagc	1260
aagctcaatg tgcagaagag caactgggag gcaggaaata ctttcacctg ctctgtgtta	1320
catgagggcc tgcacaacca ccatactgag aagagcctct cccactctcc tggtaaata	1380

<210> 13
 <211> 720
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> H2Mab-250 Light chain DNA

<400> 13	
atgatgagtc ctgcccagtt cctgtttctg ttagtgctct ggattcggga aaccaacggt	60
gatgttgtga tgaccagac tccactcact ttgtcggctt ccattggaca accagcctcc	120
atctcttgca agtcaagtca gagcctotta gatagtgatg gaaggacata tttgaattgg	180
ttgttacaga ggccaggcca gtctccaaag ogcctaattct atctgggtgc taaactggac	240
tctggagccc ctgacaggtt cactggcagt ggatcaggga cagattttac actgaaaatc	300
agcagagtgg aggctgagga tttgggagtt tattattgct ggcaaggtag acattttcct	360
cagacgttcg gtggaggcac caagctggaa atcaaacggg ctgatgctgc accaactgta	420
tccatcttcc caccatccag tgagcagtta acatctggag gtgcctcagt cgtgtgcttc	480
ttgaacaact tctaccccaa agacatcaat gtcaagtgga agattgatgg cagtgaacga	540
caaatggcg tcctgaacag ttggactgat caggacagca aagacagcac ctacagcatg	600
agcagcacc tcacgttgac caaggacgag tatgaacgac ataacagcta tacctgtgag	660
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<210> 14

<211> 464
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2Mab-214 Heavy chain protein

<400> 14

Met Asp Arg Leu Thr Ser Ser Phe Leu Leu Leu Ile Val Pro Ala Tyr
 1 5 10 15

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

Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu
 35 40 45

Ser Thr Ser Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys
 50 55 60

Gly Leu Glu Trp Leu Ala His Ile Phe Trp Asp Asp Asp Lys Arg Tyr
 65 70 75 80

Asn Pro Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Arg
 85 90 95

Asn Lys Val Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala
 100 105 110

Thr Tyr Tyr Cys Ala Arg Arg Val Val Ala Thr Asp Trp Tyr Phe Asp
 115 120 125

Val Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser Ala Lys Thr Thr
 130 135 140

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
 145 150 155 160

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
 165 170 175

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
 180 185 190

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val

195

200

205

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
 210 215 220

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
 225 230 235 240

Asp Cys Gly Cys Lys Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser
 245 250 255

Val Phe Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu
 260 265 270

Thr Pro Lys Val Thr Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro
 275 280 285

Glu Val Gln Phe Ser Trp Phe Val Asp Asp Val Glu Val His Thr Ala
 290 295 300

Gln Thr Gln Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val
 305 310 315 320

Ser Glu Leu Pro Ile Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe
 325 330 335

Lys Cys Arg Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr
 340 345 350

Ile Ser Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile
 355 360 365

Pro Pro Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys
 370 375 380

Met Ile Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp
 385 390 395 400

Asn Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp
 405 410 415

Thr Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser
 420 425 430

Asn Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val Leu His Glu Gly
 435 440 445

Leu His Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455 460

<210> 15
 <211> 238
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2Mab-214 Light chain protein

<400> 15

Met Glu Ser Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala
 20 25 30

Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser
 35 40 45

Val Glu Tyr Tyr Gly Thr Thr Leu Met Gln Trp Tyr Gln Gln Lys Pro
 50 55 60

Gly Gln Pro Pro Lys Leu Leu Ile Tyr Ala Ala Ser Lys Val Glu Ser
 65 70 75 80

Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ser
 85 90 95

Leu Asn Ile His Pro Val Glu Glu Asp Asp Val Ala Met Tyr Phe Cys
 100 105 110

Gln Gln Ser Arg Lys Val Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
 115 120 125

Glu Leu Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 16

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> H2Mab-250 Heavy chain protein

<400> 16

Met Asn Leu Gly Leu Ser Phe Ile Phe Leu Ala Leu Phe Leu Lys Gly
 1 5 10 15

Val Arg Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Asn Tyr Gly Met Ser Trp Val Arg Gln Thr Pro Asp Arg Arg Leu
 50 55 60

Glu Leu Val Ala Thr Ile Asn Asn Asn Gly Gly Gly Thr Tyr Tyr Pro
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Tyr Tyr Cys Thr Ser Pro Gly Leu Leu Trp Asp Ala Trp Gly Ala Gly
 115 120 125

Thr Thr Val Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr
 130 135 140

Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu
 145 150 155 160

Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp
 165 170 175

Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu
 180 185 190

Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser
 195 200 205

Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser
 210 215 220

Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys
 225 230 235 240

Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro
 245 250 255

Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr
 260 265 270

Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser
 275 280 285

Trp Phe Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg
 290 295 300

Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile
 305 310 315 320

Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn
 325 330 335

Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys

340

345

350

Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu
 355 360 365

Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe
 370 375 380

Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala
 385 390 395 400

Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr
 405 410 415

Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly
 420 425 430

Asn Thr Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His
 435 440 445

Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455

<210> 17

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> H2Mab-250 Light chain protein

<400> 17

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

Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Ser Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

Leu Leu Asp Ser Asp Gly Arg Thr Tyr Leu Asn Trp Leu Leu Gln Arg
 50 55 60

Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp

65		70		23 75		80									
Ser	Gly	Ala	Pro	Asp 85	Arg	Phe	Thr	Gly	Ser 90	Gly	Ser	Gly	Thr	Asp 95	Phe
Thr	Leu	Lys	Ile 100	Ser	Arg	Val	Glu	Ala 105	Glu	Asp	Leu	Gly	Val 110	Tyr	Tyr
Cys	Trp	Gln 115	Gly	Thr	His	Phe	Pro 120	Gln	Thr	Phe	Gly	Gly 125	Gly	Thr	Lys
Leu	Glu 130	Ile	Lys	Arg	Ala	Asp 135	Ala	Ala	Pro	Thr	Val 140	Ser	Ile	Phe	Pro
Pro	Ser	Ser	Glu	Gln	Leu 150	Thr	Ser	Gly	Gly	Ala 155	Ser	Val	Val	Cys	Phe 160
Leu	Asn	Asn	Phe	Tyr 165	Pro	Lys	Asp	Ile	Asn 170	Val	Lys	Trp	Lys	Ile 175	Asp
Gly	Ser	Glu	Arg 180	Gln	Asn	Gly	Val	Leu 185	Asn	Ser	Trp	Thr	Asp 190	Gln	Asp
Ser	Lys	Asp 195	Ser	Thr	Tyr	Ser	Met 200	Ser	Ser	Thr	Leu	Thr 205	Leu	Thr	Lys
Asp	Glu 210	Tyr	Glu	Arg	His	Asn 215	Ser	Tyr	Thr	Cys	Glu 220	Ala	Thr	His	Lys
Thr 225	Ser	Thr	Ser	Pro	Ile 230	Val	Lys	Ser	Phe	Asn 235	Arg	Asn	Glu	Cys	

<210> 18
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2Mab-214 HCDR1

<400> 18

Thr	Ser	Gly	Met	Gly	Val	Ser
1				5		

<210> 19

24

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

<220>
<223> H2Mab-214 HCDR2

<400> 19

His Ile Phe Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 20
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> H2Mab-214 HCDR3

<400> 20

Arg Val Val Ala Thr Asp Trp Tyr Phe Asp Val
1 5 10

<210> 21
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> H2Mab-214 LCDR1

<400> 21

Arg Ala Ser Glu Ser Val Glu Tyr Tyr Gly Thr Thr Leu Met Gln
1 5 10 15

<210> 22
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> H2Mab-214 LCDR2

<400> 22

Ala Ala Ser Lys Val Glu Ser
1 5

<210> 23
<211> 9
<212> PRT

<213> Artificial Sequence

<220>

<223> H2Mab-214 LCDR3

<400> 23

Gln Gln Ser Arg Lys Val Pro Leu Thr
1 5

<210> 24

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2Mab-250 HCDR1

<400> 24

Asn Tyr Gly Met Ser
1 5

<210> 25

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> H2Mab-250 HCDR2

<400> 25

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

Gly

<210> 26

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2Mab-250 HCDR3

<400> 26

Pro Gly Leu Leu Trp Asp Ala
1 5

<210> 27

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

<220>
 <223> H2Mab-250 LCDR1

<400> 27

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

<210> 28
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2Mab-250 LCDR2

<400> 28

Leu Val Ser Lys Leu Asp Ser
 1 5

<210> 29
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2Mab-250 LCDR3

<400> 29

Trp Gln Gly Thr His Phe Pro Gln Thr
 1 5

<210> 30
 <211> 53
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> human HER2 600-652

<400> 30

Cys Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp Lys
 1 5 10 15

Phe Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr
 20 25 30

His Ser Cys Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln Arg
 35 40 45

Ala Ser Pro Leu Thr
 50

<210> 31
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Human HER2 603-622

<400> 31

Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp
 1 5 10 15

Glu Glu Gly Ala
 20

<210> 32
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Human HER2 613-632

<400> 32

Ile Trp Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile
 1 5 10 15

Asn Cys Thr His
 20

<210> 33
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> human HER2 613-622

<400> 33

Ile Trp Lys Phe Pro Asp Glu Glu Gly Ala
 1 5 10

<210> 34
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> human HER2 611-618

<400> 34

Met Pro Ile Trp Lys Phe Pro Asp
 1 5

<210> 35
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> human HER2 612-618

<400> 35

Pro Ile Trp Lys Phe Pro Asp
 1 5

<210> 36
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> human HER2 613-619

<400> 36

Ile Trp Lys Phe Pro Asp Glu
 1 5

<210> 37
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> human HER2 p604-622C

<400> 37

Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu
 1 5 10 15

Glu Gly Ala Cys

20

<210> 38
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Linker

<400> 38

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 1 5 10 15

Gly Gly Gly Ser
 20

<210> 39
 <211> 463
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M279 Heavy Chain Protein

<400> 39

Met Asn Leu Gly Leu Ser Phe Ile Phe Leu Ala Leu Ile Leu Lys Gly
 1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe
 35 40 45

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

Glu Leu Val Ala Thr Ile Lys Ser Asn Gly Gly Arg Thr Tyr Tyr Pro
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Thr Leu His Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Tyr Tyr Cys Ala Arg Glu Gly Gly Asp Tyr Trp Gly Gln Gly Thr Ser
 115 120 125

Val Thr Val Ser Ser Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu
 130 135 140

Val Pro Gly Cys Ser Asp Thr Ser Gly Ser Ser Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Lys Trp Asn Tyr
 165 170 175

Gly Ala Leu Ser Ser Gly Val Arg Thr Val Ser Ser Val Leu Gln Ser
 180 185 190

Gly Phe Tyr Ser Leu Ser Ser Leu Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Gln Thr Val Ile Cys Asn Val Ala His Pro Ala Ser Lys Thr
 210 215 220

Glu Leu Ile Lys Arg Ile Glu Pro Arg Ile Pro Lys Pro Ser Thr Pro
 225 230 235 240

Pro Gly Ser Ser Cys Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val
 245 250 255

Phe Ile Phe Pro Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr
 260 265 270

Pro Lys Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
 275 280 285

Val His Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp
 290 295 300

Thr Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
 305 310 315 320

Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe Lys
 325 330 335

Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg Thr Ile

340

345

350

Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr Thr Ile Pro
 355 360 365

Pro Pro Arg Glu Gln Met Ser Lys Lys Lys Val Ser Leu Thr Cys Leu
 370 375 380

Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val Glu Trp Glu Arg Asn
 385 390 395 400

Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr Pro Pro Ile Leu Asp Ser
 405 410 415

Asp Gly Thr Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Thr Asp Ser
 420 425 430

Trp Leu Gln Gly Glu Ile Phe Thr Cys Ser Val Val His Glu Ala Leu
 435 440 445

His Asn His His Thr Gln Lys Asn Leu Ser Arg Ser Pro Gly Lys
 450 455 460

<210> 40
 <211> 238
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M279 Light Chain Protein

<400> 40

Met Gly Ile Lys Met Glu Thr His Ser Gln Val Phe Val Tyr Met Leu
 1 5 10 15

Leu Trp Leu Ser Gly Ile Glu Gly Asp Ile Val Met Thr Gln Ser His
 20 25 30

Lys Ile Met Ser Thr Ser Val Gly Asp Arg Val Ser Ile Ser Cys Lys
 35 40 45

Ala Ser Gln Asp Val Gly Thr Ala Val Ala Trp Tyr Gln Gln Lys Pro
 50 55 60

Gly Gln Ser Pro Ile Leu Leu Ile Tyr Trp Ala Ser Thr Arg His Thr

			20					25		33			30			
Pro	Gly	Gly 35	Ser	Leu	Lys	Leu	Ser 40	Cys	Ala	Ala	Ser	Gly 45	Phe	Thr	Phe	
Ser	Ser 50	Tyr	Ser	Met	Ser	Trp 55	Val	Arg	Gln	Thr	Pro 60	Glu	Lys	Arg	Leu	
Glu 65	Trp	Val	Ala	Ile	Ile 70	Ser	Ser	Gly	Gly	Ser 75	Tyr	Thr	Phe	Tyr	Pro 80	
Asp	Ser	Val	Lys	Gly 85	Arg	Phe	Thr	Ile	Ser 90	Arg	Asp	Asn	Ala	Lys 95	Asn	
Thr	Leu	Tyr	Leu 100	Gln	Met	Ser	Ser	Leu 105	Lys	Ser	Glu	Asp	Thr 110	Ala	Met	
Tyr	His	Cys 115	Thr	Arg	Glu	Ala	Gly 120	Asp	Tyr	Trp	Gly	Gln 125	Gly	Thr	Thr	
Leu	Thr 130	Val	Ser	Ser	Ala	Lys 135	Thr	Thr	Pro	Pro	Ser 140	Val	Tyr	Pro	Leu	
Ala 145	Pro	Gly	Ser	Ala	Ala 150	Gln	Thr	Asn	Ser	Met 155	Val	Thr	Leu	Gly	Cys 160	
Leu	Val	Lys	Gly	Tyr 165	Phe	Pro	Glu	Pro	Val 170	Thr	Val	Thr	Trp	Asn 175	Ser	
Gly	Ser	Leu	Ser 180	Ser	Gly	Val	His	Thr 185	Phe	Pro	Ala	Val	Leu 190	Gln	Ser	
Asp	Leu	Tyr 195	Thr	Leu	Ser	Ser	Ser 200	Val	Thr	Val	Pro	Ser 205	Ser	Thr	Trp	
Pro	Ser 210	Glu	Thr	Val	Thr	Cys 215	Asn	Val	Ala	His	Pro 220	Ala	Ser	Ser	Thr	
Lys 225	Val	Asp	Lys	Lys	Ile 230	Val	Pro	Arg	Asp	Cys 235	Gly	Cys	Lys	Pro	Cys 240	
Ile	Cys	Thr	Val	Pro 245	Glu	Val	Ser	Ser	Val 250	Phe	Ile	Phe	Pro	Pro 255	Lys	

Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
 260 265 270

Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe
 275 280 285

Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu
 290 295 300

Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His
 305 310 315 320

Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala
 325 330 335

Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg
 340 345 350

Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met
 355 360 365

Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro
 370 375 380

Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn
 385 390 395 400

Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val
 405 410 415

Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr
 420 425 430

Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu
 435 440 445

Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455

<210> 42

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M280 Light Chain Protein

<400> 42

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

Glu Thr Asn Gly Asp Ile Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

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

Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Asp Asp Leu Gly Ile Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr

210

215

36

220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 43

<211> 457

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M281 Heavy Chain Protein

<400> 43

Met Asn Phe Gly Leu Arg Leu Ile Phe Leu Val Leu Thr Leu Lys Gly
 1 5 10 15

Val Gln Cys Asp Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Ser Tyr Ser Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu
 50 55 60

Glu Trp Val Ala Ile Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Tyr Thr
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Asn
 85 90 95

Thr Leu Asn Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Phe Tyr Cys Thr Arg Glu Ala Gly Asp Tyr Trp Gly Gln Gly Thr Thr
 115 120 125

Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu
 130 135 140

Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser

165

170³⁷

175

Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 180 185 190

Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
 210 215 220

Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys
 225 230 235 240

Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys
 245 250 255

Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
 260 265 270

Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe
 275 280 285

Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu
 290 295 300

Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His
 305 310 315 320

Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala
 325 330 335

Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg
 340 345 350

Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met
 355 360 365

Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro
 370 375 380

Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn
 385 390 395 400

Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val
 405 410 415

Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr
 420 425 430

Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu
 435 440 445

Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455

<210> 44

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M281 Light Chain Protein

<400> 44

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

Glu Thr Asn Gly Asn Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

Leu Leu Tyr Ser Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg
 50 55 60

Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 45

<211> 464

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M282 Heavy Chain Protein

<400> 45

Met Glu Arg His Trp Ile Phe Leu Leu Leu Leu Ser Val Thr Ala Gly
 1 5 10 15

Val His Ser Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ser Arg
 20 25 30

Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ala Gly Tyr Thr Phe
 35 40 45

Ser Ser Tyr Met Ile His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu
 50 55 60

Glu Trp Ile Gly Tyr Ile Asn Pro Ser Ser Gly Tyr Ser Asn Tyr Asn
 65 70 75 80

Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser
85 90 95

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
100 105 110

Tyr Tyr Cys Ala Phe Tyr Asp Tyr Asp Gly Asp Trp Gly Gln Gly Thr
115 120 125

Leu Val Thr Val Ser Ala Ala Lys Thr Thr Ala Pro Ser Val Tyr Pro
130 135 140

Leu Ala Pro Val Cys Gly Asp Thr Thr Gly Ser Ser Val Thr Leu Gly
145 150 155 160

Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Leu Thr Trp Asn
165 170 175

Ser Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
180 185 190

Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Thr Ser Ser Thr
195 200 205

Trp Pro Ser Gln Ser Ile Thr Cys Asn Val Ala His Pro Ala Ser Ser
210 215 220

Thr Lys Val Asp Lys Lys Ile Glu Pro Arg Gly Pro Thr Ile Lys Pro
225 230 235 240

Cys Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser
245 250 255

Val Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu
260 265 270

Ser Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro
275 280 285

Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala
290 295 300

Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val

35

40

42

45

Leu Phe His Ser Asp Gly Arg Thr Phe Leu Asn Trp Leu Leu Gln Arg
 50 55 60

Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Lys Val Ser Lys Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Trp Thr Phe Gly Gly Gly Thr Lys
 115 120 125

Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro
 130 135 140

Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe
 145 150 155 160

Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp
 165 170 175

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

Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys
 195 200 205

Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys
 210 215 220

Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 47

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M283 Heavy Chain Protein

<400> 47

Met Asn Leu Gly Leu Ser Phe Ile Phe Leu Ala Leu Ile Leu Lys Gly
 1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Ser Tyr Gly Met Ser Trp Val Arg Gln Thr Pro Asp Lys Arg Leu
 50 55 60

Glu Leu Val Ala Thr Ile Asn Ser Asn Gly Gly Ser Thr Phe Tyr Pro
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Thr Leu Tyr Leu His Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Ile
 100 105 110

Tyr Tyr Cys Val Ser Pro Gly Ser Trp Phe Pro Tyr Trp Gly Arg Gly
 115 120 125

Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro Ser Val Tyr
 130 135 140

Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu
 145 150 155 160

Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp
 165 170 175

Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu
 180 185 190

Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser
 195 200 205

Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser
 210 215 220

Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys
225 230 235 240

Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro
245 250 255

Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr
260 265 270

Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser
275 280 285

Trp Phe Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg
290 295 300

Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile
305 310 315 320

Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn
325 330 335

Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
340 345 350

Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu
355 360 365

Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe
370 375 380

Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala
385 390 395 400

Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr
405 410 415

Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly
420 425 430

Asn Thr Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His
435 440 445

Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys

450

455

<210> 48
 <211> 241
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M283 Light Chain Protein

<400> 48

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

Val Ser Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr
 20 25 30

Leu Ser Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser
 35 40 45

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

Gln Arg Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser His
 65 70 75 80

Leu Asp Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr
 85 90 95

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

Tyr Tyr Cys Trp Gln Gly Thr His Phe Pro Gln Thr Phe Gly Gly Gly
 115 120 125

Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile
 130 135 140

Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val
 145 150 155 160

Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys
 165 170 175

Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp

180 46 190

Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu
195 200 205

Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr
210 215 220

His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu
225 230 235 240

Cys

<210> 49
<211> 462
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M284 Heavy Chain Protein

<400> 49

Met Gly Arg Leu Thr Ser Ser Phe Leu Leu Leu Ile Val Pro Ala Tyr
1 5 10 15

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

Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu
35 40 45

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

Gly Leu Glu Trp Leu Ala His Ile Trp Trp Asp Asp Asp Lys Asn Tyr
65 70 75 80

Asn Pro Ala Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Thr
85 90 95

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

Thr Tyr Phe Cys Ala Arg Ile Glu Gly Gln Lys Gly Phe Ala Tyr Trp

115

120

125

Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro
 130 135 140

Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met
 145 150 155 160

Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr
 165 170 175

Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro
 180 185 190

Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val
 195 200 205

Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val Ala His
 210 215 220

Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys
 225 230 235 240

Gly Cys Lys Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe
 245 250 255

Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro
 260 265 270

Lys Val Thr Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val
 275 280 285

Gln Phe Ser Trp Phe Val Asp Asp Val Glu Val His Thr Ala Gln Thr
 290 295 300

Gln Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu
 305 310 315 320

Leu Pro Ile Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys
 325 330 335

Arg Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser
 340 345 350

Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro
 355 360 365

Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile
 370 375 380

Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly
 385 390 395 400

Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp
 405 410 415

Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp
 420 425 430

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

Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455 460

<210> 50

<211> 240

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M284 Light Chain Protein

<400> 50

Met Asp Ser Gln Ala Gln Val Leu Met Leu Leu Leu Leu Trp Val Ser
 1 5 10 15

Gly Thr Cys Gly Asp Ile Val Met Ser Gln Ser Pro Ser Ser Leu Ala
 20 25 30

Val Ser Val Gly Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser
 35 40 45

Leu Leu Tyr Ser Arg Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln
 50 55 60

Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
 65 70 75 80

Glu Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
85 90 95

Phe Thr Leu Thr Ile Ser Ser Val Lys Ala Glu Asp Leu Ala Val Tyr
100 105 110

Tyr Cys Gln Gln Tyr Tyr Ser Ser Pro Tyr Thr Phe Gly Gly Gly Thr
115 120 125

Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe
130 135 140

Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys
145 150 155 160

Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile
165 170 175

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

Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr
195 200 205

Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His
210 215 220

Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
225 230 235 240

<210> 51

<211> 463

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M285 Heavy Chain Protein

<400> 51

Met Asn Leu Gly Leu Ser Phe Ile Phe Leu Val Leu Ile Leu Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Asn Tyr Gly Ile Phe Trp Val Arg Gln Thr Pro Asp Lys Arg Leu
 50 55 60

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

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys
 85 90 95

Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Tyr Tyr Cys Ala Arg Glu Gly Gly Asp Tyr Trp Gly Gln Gly Thr Ser
 115 120 125

Val Thr Val Ser Ser Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu
 130 135 140

Val Pro Gly Cys Ser Asp Thr Ser Gly Ser Ser Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Lys Trp Asn Tyr
 165 170 175

Gly Ala Leu Ser Ser Gly Val Arg Thr Val Ser Ser Val Leu Gln Ser
 180 185 190

Gly Phe Tyr Ser Leu Ser Ser Leu Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Gln Thr Val Ile Cys Asn Val Ala His Pro Ala Ser Lys Thr
 210 215 220

Glu Leu Ile Lys Arg Ile Glu Pro Arg Ile Pro Lys Pro Ser Thr Pro
 225 230 235 240

Pro Gly Ser Ser Cys Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val
 245 250 255

Phe Ile Phe Pro Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr

260 265 51 270

Pro Lys Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
275 280 285

Val His Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp
290 295 300

Thr Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
305 310 315 320

Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe Lys
325 330 335

Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg Thr Ile
340 345 350

Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr Thr Ile Pro
355 360 365

Pro Pro Arg Glu Gln Met Ser Lys Lys Lys Val Ser Leu Thr Cys Leu
370 375 380

Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val Glu Trp Glu Arg Asn
385 390 395 400

Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr Pro Pro Ile Leu Asp Ser
405 410 415

Asp Gly Thr Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Thr Asp Ser
420 425 430

Trp Leu Gln Gly Glu Ile Phe Thr Cys Ser Val Val His Glu Ala Leu
435 440 445

His Asn His His Thr Gln Lys Asn Leu Ser Arg Ser Pro Gly Lys
450 455 460

<210> 52
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M285 Light Chain Protein

<400> 52

Met Gly Ile Lys Met Glu Thr His Ser Gln Val Phe Val Tyr Met Leu
 1 5 10 15

Leu Trp Leu Ser Gly Val Glu Gly Asp Ile Val Met Thr Gln Ser His
 20 25 30

Lys Phe Met Ser Thr Ser Val Gly Asp Arg Val Ser Ile Thr Cys Lys
 35 40 45

Ala Ser Gln Asp Val Gly Thr Ala Val Ala Trp Tyr Gln Gln Lys Pro
 50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg His Thr
 65 70 75 80

Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 85 90 95

Leu Thr Ile Arg Asn Val Gln Ser Glu Asp Leu Ala Asp Tyr Phe Cys
 100 105 110

Gln Gln Tyr Asn Arg Asn Pro Leu Thr Phe Gly Ala Gly Thr Arg Leu
 115 120 125

Glu Leu Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 53
 <211> 455
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M286 Heavy Chain Protein

<400> 53

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

Leu Ser Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro
 20 25 30

Ser Gln Ser Leu Ser Leu Thr Cys Thr Val Thr Gly Tyr Ser Ile Thr
 35 40 45

Ser Asp Tyr Gly Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu
 50 55 60

Glu Trp Met Gly Tyr Ile Arg Tyr Ser Gly Ile Thr Ser Tyr Asn Pro
 65 70 75 80

Ser Leu Lys Ser Arg Ile Ser Ile Thr Arg Asp Thr Ser Lys Asn Gln
 85 90 95

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

Tyr Cys Thr Arg Glu Val Leu Ser Trp Gly Gln Gly Thr Thr Leu Thr
 115 120 125

Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu Ala Pro
 130 135 140

Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys Leu Val
 145 150 155 160

Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser Gly Ser
 165 170 175

Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Asp Leu
 180 185 190

Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp Pro Ser
 195 200 205

Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr Lys Val
 210 215 220

Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys Ile Cys
 225 230 235 240

Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys Pro Lys
 245 250 255

Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val Val Val
 260 265 270

Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe Val Asp
 275 280 285

Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu Gln Phe
 290 295 300

Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His Gln Asp
 305 310 315 320

Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala Ala Phe
 325 330 335

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg Pro Lys
 340 345 350

Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met Ala Lys
 355 360 365

Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro Glu Asp
 370 375 380

Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn Tyr Lys
 385 390 395 400

Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val Tyr Ser

405 410⁵⁵ 415

Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr Phe Thr
420 425 430

Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu Lys Ser
435 440 445

Leu Ser His Ser Pro Gly Lys
450 455

<210> 54
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M286 Light Chain Protein

<400> 54

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

Ser Ser Ser Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val
20 25 30

Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
35 40 45

Val His Ser Asn Gly Asn Thr Tyr Leu His Trp Phe Leu Gln Lys Pro
50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
65 70 75 80

Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
85 90 95

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys
100 105 110

Ser Gln Ser Thr His Val Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu
115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro

130

135

56

140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 55

<211> 457

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M287 Heavy Chain Protein

<400> 55

Met Asn Phe Gly Leu Arg Leu Ile Phe Leu Val Leu Thr Leu Lys Gly
 1 5 10 15

Val Gln Cys Asp Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Ser Tyr Ser Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu
 50 55 60

Glu Trp Val Ala Ile Ile Ser Ser Gly Gly Ser Tyr Ile Phe Tyr Pro
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn

85

90

57

95

Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Tyr Tyr Cys Thr Arg Glu Ala Gly Asp Tyr Trp Gly Gln Gly Thr Thr
 115 120 125

Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu
 130 135 140

Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser
 165 170 175

Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 180 185 190

Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
 210 215 220

Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys
 225 230 235 240

Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys
 245 250 255

Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
 260 265 270

Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe
 275 280 285

Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu
 290 295 300

Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His
 305 310 315 320

Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala
 325 330 335

Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg
 340 345 350

Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met
 355 360 365

Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro
 370 375 380

Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn
 385 390 395 400

Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val
 405 410 415

Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr
 420 425 430

Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu
 435 440 445

Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455

<210> 56

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M287 Light Chain Protein

<400> 56

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

Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

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

Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 57

<211> 457

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M288 Heavy Chain Protein

<400> 57

Met Asn Phe Gly Leu Arg Leu Ile Phe Leu Val Leu Thr Leu Lys Gly
1 5 10 15

Val Gln Cys Asp Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys
20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Arg Tyr Ser Leu Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu
50 55 60

Glu Trp Val Ala Val Ile Ser Ser Gly Gly Arg Tyr Thr Phe Tyr Pro
65 70 75 80

Asp Gly Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Met
100 105 110

Tyr Phe Cys Thr Arg Glu Ala Gly Asp Tyr Trp Gly Gln Gly Thr Pro
115 120 125

Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu
130 135 140

Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys
145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser
165 170 175

Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
180 185 190

Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp
195 200 205

Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
210 215 220

Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys

225		230		61 235		240
Ile Cys Thr Val	Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys	245		250		255
Pro Lys Asp Val	Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val	260		265		270
Val Val Asp	Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe	275		280		285
Val Asp Asp Val	Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu	290		295		300
Gln Phe Asn Ser Thr	Phe Arg Ser Val Ser Glu Leu Pro Ile Met His	305		310		315
Gln Asp Trp Leu	Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala	325		330		335
Ala Phe Pro	Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg	340		345		350
Pro Lys Ala Pro	Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met	355		360		365
Ala Lys Asp Lys Val	Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro	370		375		380
Glu Asp Ile Thr Val	Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn	385		390		395
Tyr Lys Asn Thr	Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val	405		410		415
Tyr Ser Lys Leu	Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr	420		425		430
Phe Thr Cys Ser Val	Leu His Glu Gly Leu His Asn His His Thr Glu	435		440		445
Lys Ser Leu Ser His Ser	Pro Gly Lys	450		455		

<210> 58
 <211> 238
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M288 Light Chain Protein

<400> 58

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

Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

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

Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 59

<211> 464

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289 Heavy Chain Protein

<400> 59

Met Gly Trp Ser Trp Ile Phe Leu Ser Leu Leu Ser Val Thr Ala Gly
 1 5 10 15

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

Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe
 35 40 45

Thr Gly Phe Phe Met Asn Trp Val Met Gln Ser His Gly Lys Ser Leu
 50 55 60

Glu Trp Ile Gly Arg Ile Asn Pro Tyr Asn Gly Asp Thr Phe Tyr Asn
 65 70 75 80

Gln Lys Phe Asn Asp Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Arg
 85 90 95

Thr Ala His Met Asp Leu Arg Asn Leu Ala Ser Glu Asp Ser Ala Val
 100 105 110

Tyr Tyr Cys Ala Thr Ile Ser Gly Asn Tyr Arg Gly Tyr Ala Met Asp
 115 120 125

Asn Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
 130 135 140

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
145 150 155 160

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
165 170 175

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
180 185 190

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
195 200 205

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
210 215 220

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
225 230 235 240

Asp Cys Gly Cys Lys Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser
245 250 255

Val Phe Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu
260 265 270

Thr Pro Lys Val Thr Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro
275 280 285

Glu Val Gln Phe Ser Trp Phe Val Asp Asp Val Glu Val His Thr Ala
290 295 300

Gln Thr Gln Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val
305 310 315 320

Ser Glu Leu Pro Ile Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe
325 330 335

Lys Cys Arg Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr
340 345 350

Ile Ser Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile
355 360 365

Pro Pro Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys

370

375

65

380

Met Ile Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp
 385 390 395 400

Asn Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp
 405 410 415

Thr Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser
 420 425 430

Asn Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val Leu His Glu Gly
 435 440 445

Leu His Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455 460

<210> 60

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289 Light Chain Protein

<400> 60

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

Ser Ser Ser Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val
 20 25 30

Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Thr Ile
 35 40 45

Leu His Thr Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro
 50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
 65 70 75 80

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 85 90 95

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys

66

100

105

110

Phe Gln Gly Ser Arg Val Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 61

<211> 457

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290 Heavy Chain Protein

<400> 61

Met Asn Phe Gly Leu Arg Leu Ile Phe Leu Val Leu Thr Leu Lys Gly
 1 5 10 15

Val Gln Cys Asp Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Ser Tyr Ser Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu

50

55

67

60

Glu Trp Val Ala Ile Ile Ser Ser Gly Gly Ser Tyr Ile Phe Tyr Pro
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
100 105 110

Tyr Tyr Cys Thr Arg Glu Ala Gly Asp Tyr Trp Gly Gln Gly Thr Thr
115 120 125

Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu
130 135 140

Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys
145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser
165 170 175

Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
180 185 190

Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp
195 200 205

Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
210 215 220

Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys
225 230 235 240

Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys
245 250 255

Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
260 265 270

Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe
275 280 285

Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu
290 295 300

Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His
305 310 315 320

Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala
325 330 335

Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg
340 345 350

Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met
355 360 365

Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro
370 375 380

Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn
385 390 395 400

Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val
405 410 415

Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr
420 425 430

Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu
435 440 445

Lys Ser Leu Ser His Ser Pro Gly Lys
450 455

<210> 62

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290 Light Chain Protein

<400> 62

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

Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

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

Pro Gly Gln Ser Pro Lys Arg Leu Leu Tyr Leu Val Ser Asn Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Ile Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<211> 463
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M291 Heavy Chain Protein

<400> 63

Met Gly Trp Ser Trp Ile Phe Leu Phe Leu Leu Ser Gly Thr Ala Gly
 1 5 10 15

Val His Ser Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys
 20 25 30

Pro Gly Ala Ser Met Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe
 35 40 45

Thr Gly Tyr Thr Met Asn Trp Val Lys Gln Ser His Gly Lys Asn Leu
 50 55 60

Glu Trp Ile Gly Leu Ile Asn Pro Tyr Asn Gly Asn Thr Arg Tyr Asn
 65 70 75 80

Gln Lys Phe Gln Asp Lys Ala Thr Leu Thr Val Asp Arg Ser Ser Ser
 85 90 95

Thr Ala Tyr Met Glu Leu Leu Ser Leu Thr Ser Glu Asp Ser Ala Val
 100 105 110

Tyr Tyr Cys Val Lys Glu Pro Ser Asp Tyr Trp Gly Gln Gly Thr Thr
 115 120 125

Leu Thr Val Ser Ser Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu
 130 135 140

Val Pro Gly Cys Ser Asp Thr Ser Gly Ser Ser Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Lys Trp Asn Tyr
 165 170 175

Gly Ala Leu Ser Ser Gly Val Arg Thr Val Ser Ser Val Leu Gln Ser
 180 185 190

Gly Phe Tyr Ser Leu Ser Ser Leu Val Thr Val Pro Ser Ser Thr Trp

195

200

205

Pro Ser Gln Thr Val Ile Cys Asn Val Ala His Pro Ala Ser Lys Thr
 210 215 220

Glu Leu Ile Lys Arg Ile Glu Pro Arg Ile Pro Lys Pro Ser Thr Pro
 225 230 235 240

Pro Gly Ser Ser Cys Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val
 245 250 255

Phe Ile Phe Pro Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr
 260 265 270

Pro Lys Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
 275 280 285

Val His Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp
 290 295 300

Thr Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
 305 310 315 320

Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe Lys
 325 330 335

Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg Thr Ile
 340 345 350

Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr Thr Ile Pro
 355 360 365

Pro Pro Arg Glu Gln Met Ser Lys Lys Lys Val Ser Leu Thr Cys Leu
 370 375 380

Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val Glu Trp Glu Arg Asn
 385 390 395 400

Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr Pro Pro Ile Leu Asp Ser
 405 410 415

Asp Gly Thr Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Thr Asp Ser
 420 425 430

Trp Leu Gln Gly Glu Ile Phe Thr Cys Ser Val Val His Glu Ala Leu
 435 440 445

His Asn His His Thr Gln Lys Asn Leu Ser Arg Ser Pro Gly Lys
 450 455 460

<210> 64
 <211> 238
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M291 Light Chain Protein

<400> 64

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

Ser Ser Ser Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val
 20 25 30

Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
 35 40 45

Val His Ile Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro
 50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Lys Arg Phe Ser
 65 70 75 80

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 85 90 95

Leu Lys Ile Ser Arg Val Glu Ala Ala Asp Leu Gly Val Tyr Phe Cys
 100 105 110

Ser Gln Ser Thr His Val Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 65

<211> 463

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M292 Heavy Chain Protein

<400> 65

Met Gly Trp Ser Trp Ile Phe Leu Phe Leu Leu Ser Gly Thr Ala Gly
 1 5 10 15

Val His Ser Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys
 20 25 30

Pro Gly Ala Ser Arg Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe
 35 40 45

Thr Gly Tyr Thr Met Asn Trp Val Lys Lys Ser His Gly Lys Asn Leu
 50 55 60

Glu Trp Ile Gly Leu Ile Asn Pro Ser Asn Gly Gly Thr Arg Tyr Asn
 65 70 75 80

Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
 85 90 95

Thr Ala Tyr Met Glu Leu Leu Ser Leu Thr Ser Glu Asp Ser Ala Val
 100 105 110

Tyr Tyr Cys Val Lys Glu Pro Ser Asp Tyr Trp Gly Gln Gly Thr Thr
 115 120 125

Leu Thr Val Ser Ser Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu
 130 135 140

Val Pro Gly Cys Ser Asp Thr Ser Gly Ser Ser Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Lys Trp Asn Tyr
 165 170 175

Gly Ala Leu Ser Ser Gly Val Arg Thr Val Ser Ser Val Leu Gln Ser
 180 185 190

Gly Phe Tyr Ser Leu Ser Ser Leu Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Gln Thr Val Ile Cys Asn Val Ala His Pro Ala Ser Lys Thr
 210 215 220

Glu Leu Ile Lys Arg Ile Glu Pro Arg Ile Pro Lys Pro Ser Thr Pro
 225 230 235 240

Pro Gly Ser Ser Cys Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val
 245 250 255

Phe Ile Phe Pro Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr
 260 265 270

Pro Lys Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
 275 280 285

Val His Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp
 290 295 300

Thr Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
 305 310 315 320

Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe Lys
 325 330 335

Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg Thr Ile

75

340

345

350

Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr Thr Ile Pro
355 360 365

Pro Pro Arg Glu Gln Met Ser Lys Lys Lys Val Ser Leu Thr Cys Leu
370 375 380

Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val Glu Trp Glu Arg Asn
385 390 395 400

Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr Pro Pro Ile Leu Asp Ser
405 410 415

Asp Gly Thr Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Thr Asp Ser
420 425 430

Trp Leu Gln Gly Glu Ile Phe Thr Cys Ser Val Val His Glu Ala Leu
435 440 445

His Asn His His Thr Gln Lys Asn Leu Ser Arg Ser Pro Gly Lys
450 455 460

<210> 66
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M292 Light Chain Protein

<400> 66

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

Ser Ser Ser Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val
20 25 30

Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
35 40 45

Val His Ser Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro
50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser

65		70		76 75		80
Gly Val Pro Asp	Arg Phe Ser Gly Arg Gly Ser Gly Thr Asp Phe Thr	85	90	95		
Leu Lys Ile Ser	Arg Val Glu Ala Glu Asp Leu Gly Ile Tyr Phe Cys	100	105	110		
Ser Gln Ser Thr His Val Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu		115	120	125		
Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro		130	135	140		
Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu		145	150	155	160	
Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly		165	170	175		
Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser		180	185	190		
Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp		195	200	205		
Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr		210	215	220		
Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys		225	230	235		

<210> 67
 <211> 463
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M293 Heavy Chain Protein

<400> 67

Met Asn Leu Gly Leu Ser Phe Ile Phe Leu Ala Leu Ile Leu Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln

20 25 77 30
 Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45
 Ser Asn Tyr Gly Ile Phe Trp Val Arg Gln Thr Pro Asp Lys Arg Leu
 50 55 60
 Glu Leu Val Ala Thr Val Lys Ser Asn Gly Gly Ser Thr Tyr Tyr Pro
 65 70 75 80
 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys
 85 90 95
 Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110
 Tyr Tyr Cys Ala Arg Glu Gly Gly Asp Tyr Trp Gly Gln Gly Thr Ser
 115 120 125
 Val Thr Val Ser Ser Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu
 130 135 140
 Val Pro Gly Cys Ser Asp Thr Ser Gly Ser Ser Val Thr Leu Gly Cys
 145 150 155 160
 Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Lys Trp Asn Tyr
 165 170 175
 Gly Ala Leu Ser Ser Gly Val Arg Thr Val Ser Ser Val Leu Gln Ser
 180 185 190
 Gly Phe Tyr Ser Leu Ser Ser Leu Val Thr Val Pro Ser Ser Thr Trp
 195 200 205
 Pro Ser Gln Thr Val Ile Cys Asn Val Ala His Pro Ala Ser Lys Thr
 210 215 220
 Glu Leu Ile Lys Arg Ile Glu Pro Arg Ile Pro Lys Pro Ser Thr Pro
 225 230 235 240
 Pro Gly Ser Ser Cys Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val
 245 250 255

Phe Ile Phe Pro Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr
 260 265 270

Pro Lys Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
 275 280 285

Val His Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp
 290 295 300

Thr Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
 305 310 315 320

Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe Lys
 325 330 335

Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg Thr Ile
 340 345 350

Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr Thr Ile Pro
 355 360 365

Pro Pro Arg Glu Gln Met Ser Lys Lys Lys Val Ser Leu Thr Cys Leu
 370 375 380

Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val Glu Trp Glu Arg Asn
 385 390 395 400

Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr Pro Pro Ile Leu Asp Ser
 405 410 415

Asp Gly Thr Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Thr Asp Ser
 420 425 430

Trp Leu Gln Gly Glu Ile Phe Thr Cys Ser Val Val His Glu Ala Leu
 435 440 445

His Asn His His Thr Gln Lys Asn Leu Ser Arg Ser Pro Gly Lys
 450 455 460

<210> 68

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M293 Light Chain Protein

<400> 68

Met Gly Ile Lys Met Glu Thr His Ser Gln Val Phe Val Tyr Met Leu
 1 5 10 15

Leu Trp Leu Ser Gly Val Glu Gly Asp Ile Val Met Thr Gln Ser His
 20 25 30

Lys Phe Met Ser Thr Ser Val Gly Asp Arg Val Ser Ile Thr Cys Lys
 35 40 45

Ala Ser Gln Asp Val Gly Thr Ala Val Ala Trp Tyr Gln Gln Lys Pro
 50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg His Ile
 65 70 75 80

Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 85 90 95

Leu Thr Ile Arg Asn Val Gln Ser Glu Asp Leu Ala Asn Tyr Phe Cys
 100 105 110

Gln Gln Tyr Ser Lys Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
 115 120 125

Glu Leu Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr

210

215

80

220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 69

<211> 468

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M294 Heavy Chain Protein

<400> 69

Met Ser Thr Glu His Arg Pro Leu Ser Val Asn Leu Gly Leu Ser Phe
 1 5 10 15

Ile Phe Leu Ala Leu Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu
 20 25 30

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu
 35 40 45

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Gly Met Ser Trp
 50 55 60

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

Ser Asn Gly Gly Gly Thr Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe
 85 90 95

Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser
 100 105 110

Ser Leu Lys Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ser Pro Gly
 115 120 125

Ser Trp Phe Pro Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
 130 135 140

Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala
 145 150 155 160

Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr

										81											
165					170					175											
Phe	Pro	Glu	Pro 180	Val	Thr	Val	Thr	Trp 185	Asn	Ser	Gly	Ser	Leu 190	Ser	Ser						
Gly	Val	His 195	Thr	Phe	Pro	Ala	Val 200	Leu	Gln	Ser	Asp	Leu 205	Tyr	Thr	Leu						
Ser	Ser 210	Ser	Val	Thr	Val	Pro 215	Ser	Ser	Thr	Trp	Pro 220	Ser	Glu	Thr	Val						
Thr 225	Cys	Asn	Val	Ala	His 230	Pro	Ala	Ser	Ser	Thr 235	Lys	Val	Asp	Lys	Lys 240						
Ile	Val	Pro	Arg	Asp 245	Cys	Gly	Cys	Lys	Pro 250	Cys	Ile	Cys	Thr	Val 255	Pro						
Glu	Val	Ser	Ser 260	Val	Phe	Ile	Phe	Pro 265	Pro	Lys	Pro	Lys	Asp 270	Val	Leu						
Thr	Ile	Thr 275	Leu	Thr	Pro	Lys	Val 280	Thr	Cys	Val	Val	Val 285	Asp	Ile	Ser						
Lys	Asp 290	Asp	Pro	Glu	Val	Gln 295	Phe	Ser	Trp	Phe	Val 300	Asp	Asp	Val	Glu						
Val 305	His	Thr	Ala	Gln	Thr 310	Gln	Pro	Arg	Glu	Glu 315	Gln	Phe	Asn	Ser	Thr 320						
Phe	Arg	Ser	Val	Ser 325	Glu	Leu	Pro	Ile	Met 330	His	Gln	Asp	Trp	Leu 335	Asn						
Gly	Lys	Glu	Phe 340	Lys	Cys	Arg	Val	Asn 345	Ser	Ala	Ala	Phe	Pro 350	Ala	Pro						
Ile	Glu	Lys 355	Thr	Ile	Ser	Lys	Thr 360	Lys	Gly	Arg	Pro	Lys 365	Ala	Pro	Gln						
Val	Tyr 370	Thr	Ile	Pro	Pro	Pro 375	Lys	Glu	Gln	Met	Ala 380	Lys	Asp	Lys	Val						
Ser 385	Leu	Thr	Cys	Met	Ile 390	Thr	Asp	Phe	Phe	Pro 395	Glu	Asp	Ile	Thr	Val 400						

Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln
 405 410 415

Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn
 420 425 430

Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val
 435 440 445

Leu His Glu Gly Leu His Asn His His Thr Glu Lys Ser Leu Ser His
 450 455 460

Ser Pro Gly Lys
 465

<210> 70
 <211> 239
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M294 Light Chain Protein

<400> 70

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

Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

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

Pro Gly Gln Ser Pro Arg Arg Leu Ile Phe Leu Val Ser Lys Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Gln Thr Phe Gly Gly Gly Thr Lys
 115 120 125

Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro
 130 135 140

Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe
 145 150 155 160

Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp
 165 170 175

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

Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys
 195 200 205

Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys
 210 215 220

Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 71

<211> 457

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M295 Heavy Chain Protein

<400> 71

Met Gly Trp Ser Trp Ile Phe Leu Phe Leu Leu Ser Gly Thr Ala Gly
 1 5 10 15

Val His Ser Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys
 20 25 30

Pro Gly Ala Ser Arg Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe
 35 40 45

Thr Gly Tyr Thr Met Asn Trp Val Lys Lys Ser His Gly Lys Asn Leu
 50 55 60

Glu Trp Ile Gly Leu Ile Asn Pro Tyr Asn Gly Gly Thr Arg Tyr Asn
65 70 75 80

Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
85 90 95

Thr Ala Tyr Met Glu Leu Leu Ser Leu Thr Ser Glu Asp Ser Ala Val
100 105 110

Tyr Tyr Cys Val Lys Glu Pro Ser Asp Tyr Trp Gly Gln Gly Thr Thr
115 120 125

Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu
130 135 140

Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys
145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser
165 170 175

Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
180 185 190

Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp
195 200 205

Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
210 215 220

Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys
225 230 235 240

Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys
245 250 255

Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
260 265 270

Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe
275 280 285

Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu

290

295

85

300

Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His
 305 310 315 320

Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala
 325 330 335

Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg
 340 345 350

Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met
 355 360 365

Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro
 370 375 380

Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn
 385 390 395 400

Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val
 405 410 415

Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr
 420 425 430

Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu
 435 440 445

Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455

<210> 72

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M295 Light Chain Protein

<400> 72

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

Ser Ser Ser Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val

	20		25	86		30									
Ser	Leu	Gly	Asp	Gln	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu
		35					40					45			
Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	His	Trp	Tyr	Leu	Gln	Lys	Pro
	50					55					60				
Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Lys	Arg	Phe	Ser
65					70					75					80
Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Cys	Gly	Ser	Gly	Thr	Asp	Phe	Thr
				85					90					95	
Leu	Lys	Ile	Ser	Arg	Leu	Glu	Ala	Glu	Asp	Leu	Gly	Val	Tyr	Phe	Cys
			100					105					110		
Ser	Gln	Ser	Ser	His	Val	Pro	Pro	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu
		115					120					125			
Glu	Ile	Lys	Arg	Ala	Asp	Ala	Ala	Pro	Thr	Val	Ser	Ile	Phe	Pro	Pro
	130					135					140				
Ser	Ser	Glu	Gln	Leu	Thr	Ser	Gly	Gly	Ala	Ser	Val	Val	Cys	Phe	Leu
145					150					155					160
Asn	Asn	Phe	Tyr	Pro	Lys	Asp	Ile	Asn	Val	Lys	Trp	Lys	Ile	Asp	Gly
				165					170					175	
Ser	Glu	Arg	Gln	Asn	Gly	Val	Leu	Asn	Ser	Trp	Thr	Asp	Gln	Asp	Ser
			180					185					190		
Lys	Asp	Ser	Thr	Tyr	Ser	Met	Ser	Ser	Thr	Leu	Thr	Leu	Thr	Lys	Asp
		195					200					205			
Glu	Tyr	Glu	Arg	His	Asn	Ser	Tyr	Thr	Cys	Glu	Ala	Thr	His	Lys	Thr
	210					215					220				
Ser	Thr	Ser	Pro	Ile	Val	Lys	Ser	Phe	Asn	Arg	Asn	Glu	Cys		
225					230					235					

<210> 73
 <211> 462
 <212> PRT

<213> Artificial Sequence

<220>

<223> H2M296 Heavy Chain Protein

<400> 73

Met Gly Arg Leu Thr Ser Ser Phe Leu Leu Leu Ile Val Pro Ala Tyr
1 5 10 15

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

Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu
35 40 45

Ser Thr Ser Gly Met Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Lys
50 55 60

Gly Leu Glu Trp Leu Ala His Ile Trp Trp Asp Asp Asp Lys Arg Tyr
65 70 75 80

Asn Pro Ala Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser
85 90 95

Asn Gln Val Phe Leu Lys Ile Ala Asn Val Asp Thr Ser Asp Thr Ala
100 105 110

Thr Tyr Tyr Cys Ser Arg Ile Glu Gly Gln Arg Gly Phe Ala Tyr Trp
115 120 125

Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro
130 135 140

Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met
145 150 155 160

Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr
165 170 175

Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro
180 185 190

Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val
195 200 205

Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val Ala His
 210 215 220

Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys
 225 230 235 240

Gly Cys Lys Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe
 245 250 255

Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro
 260 265 270

Lys Val Thr Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val
 275 280 285

Gln Phe Ser Trp Phe Val Asp Asp Val Glu Val His Thr Ala Gln Thr
 290 295 300

Gln Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu
 305 310 315 320

Leu Pro Ile Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys
 325 330 335

Arg Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser
 340 345 350

Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro
 355 360 365

Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile
 370 375 380

Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly
 385 390 395 400

Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp
 405 410 415

Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp
 420 425 430

Glu Ala Gly Asn Thr Phe Thr Cys Ser Val Leu His Glu Gly Leu His

435

440

445

Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455 460

<210> 74

<211> 240

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M296 Light Chain Protein

<400> 74

Met Asp Ser Gln Ala Gln Val Leu Met Leu Leu Leu Leu Trp Val Ser
 1 5 10 15

Gly Thr Cys Gly Asp Ile Val Met Ser Gln Ser Pro Ser Ser Leu Ala
 20 25 30

Val Ser Val Gly Glu Met Ile Thr Met Thr Cys Lys Ser Ser Gln Ser
 35 40 45

Leu Leu Tyr Ser Arg Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln
 50 55 60

Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
 65 70 75 80

Glu Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
 85 90 95

Phe Thr Leu Thr Ile Ser Ser Val Lys Ala Glu Asp Leu Ala Val Tyr
 100 105 110

Tyr Cys Gln Gln Tyr Tyr Ser Gln Pro Tyr Thr Phe Gly Gly Gly Thr
 115 120 125

Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe
 130 135 140

Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys
 145 150 155 160

Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile

165

170⁹⁰

175

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

Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr
 195 200 205

Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His
 210 215 220

Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235 240

<210> 75

<211> 463

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M297 Heavy Chain Protein

<400> 75

Met Asn Leu Gly Leu Ser Phe Ile Phe Leu Ala Leu Ile Leu Lys Gly
 1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe
 35 40 45

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

Glu Leu Val Ala Thr Ile Lys Ser Asn Gly Gly Arg Thr Tyr Tyr Pro
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Thr Leu His Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Tyr Tyr Cys Ala Arg Glu Gly Gly Asp Tyr Trp Gly Gln Gly Thr Ser

115

120

125

Val Thr Val Ser Ser Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu
 130 135 140

Val Pro Gly Cys Ser Asp Thr Ser Gly Ser Ser Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Lys Trp Asn Tyr
 165 170 175

Gly Ala Leu Ser Ser Gly Val Arg Thr Val Ser Ser Val Leu Gln Ser
 180 185 190

Gly Phe Tyr Ser Leu Ser Ser Leu Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Gln Thr Val Ile Cys Asn Val Ala His Pro Ala Ser Lys Thr
 210 215 220

Glu Leu Ile Lys Arg Ile Glu Pro Arg Ile Pro Lys Pro Ser Thr Pro
 225 230 235 240

Pro Gly Ser Ser Cys Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val
 245 250 255

Phe Ile Phe Pro Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr
 260 265 270

Pro Lys Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
 275 280 285

Val His Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp
 290 295 300

Thr Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
 305 310 315 320

Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe Lys
 325 330 335

Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg Thr Ile
 340 345 350

Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr Thr Ile Pro
355 360 365

Pro Pro Arg Glu Gln Met Ser Lys Lys Lys Val Ser Leu Thr Cys Leu
370 375 380

Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val Glu Trp Glu Arg Asn
385 390 395 400

Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr Pro Pro Ile Leu Asp Ser
405 410 415

Asp Gly Thr Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Thr Asp Ser
420 425 430

Trp Leu Gln Gly Glu Ile Phe Thr Cys Ser Val Val His Glu Ala Leu
435 440 445

His Asn His His Thr Gln Lys Asn Leu Ser Arg Ser Pro Gly Lys
450 455 460

$\langle 210 \rangle$	76
$\langle 211 \rangle$	238
$\langle 212 \rangle$	PRT
$\langle 213 \rangle$	Artificial Sequence

<220>
<223> H2M297 Light Chain Protein

<400> 76

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

Ser Ser Ser Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val
20 25 30

Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Val
35 40 45

Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro
50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
65 70 75 80

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
85 90 95

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Ile Tyr Tyr Cys
100 105 110

Phe Gln Gly Ser Arg Val Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu
115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
195 200 205

Glu Tyr Glu Arg His Asn Asn Tyr Thr Cys Glu Ala Thr His Lys Thr
210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
225 230 235

<210> 77
<211> 457
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M298 Heavy Chain Protein

<400> 77

Met Asn Phe Gly Leu Arg Leu Ile Phe Leu Val Leu Thr Leu Lys Gly
1 5 10 15

Val Gln Cys Asp Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys
20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Arg Tyr Ser Met Ser Trp Val Arg Gln Thr Pro Glu Lys Lys Leu
 50 55 60

Glu Trp Val Ala Ile Ile Ser Thr Gly Gly Ser Tyr Met Phe Tyr Pro
 65 70 75 80

Asp Ser Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Asn
 85 90 95

Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Tyr Tyr Cys Thr Arg Glu Ala Gly Asp Tyr Trp Gly Gln Gly Thr Thr
 115 120 125

Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu
 130 135 140

Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser
 165 170 175

Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 180 185 190

Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
 210 215 220

Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys
 225 230 235 240

Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys
 245 250 255

Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val

260 95 270
 Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe
 275 280 285
 Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu
 290 295 300
 Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His
 305 310 315 320
 Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala
 325 330 335
 Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg
 340 345 350
 Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met
 355 360 365
 Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro
 370 375 380
 Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn
 385 390 395 400
 Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val
 405 410 415
 Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr
 420 425 430
 Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu
 435 440 445
 Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455

<210> 78
 <211> 238
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> H2M298 Light Chain Protein

<400> 78

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

Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
 20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
 35 40 45

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

Pro Gly Gln Ser Pro Arg Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp
 65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ser Glu Asp Leu Gly Val Tyr Tyr
 100 105 110

Cys Trp Gln Gly Thr His Phe Pro Thr Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
 130 135 140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 79
 <211> 457
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M299 Heavy Chain Protein

<400> 79

Met Asn Leu Gly Leu Ser Phe Ile Phe Leu Ala Leu Ile Leu Lys Gly
 1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Asn Ile Tyr Gly Ile Phe Trp Val Arg Gln Thr Pro Asp Lys Arg Leu
 50 55 60

Glu Leu Val Ala Thr Ile His Ser Asn Gly Gly Arg Ile Tyr Tyr Pro
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met
 100 105 110

Tyr Tyr Cys Ala Arg Glu Gly Gly Asp Tyr Trp Gly Gln Gly Thr Ser
 115 120 125

Val Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu
 130 135 140

Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys
 145 150 155 160

Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser
 165 170 175

Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 180 185 190

Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp
 195 200 205

Pro Ser Glu Thr Val Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
 210 215 220

Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys Gly Cys Lys Pro Cys
 225 230 235 240

Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys
 245 250 255

Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
 260 265 270

Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp Phe
 275 280 285

Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg Glu Glu
 290 295 300

Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro Ile Met His
 305 310 315 320

Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys Arg Val Asn Ser Ala
 325 330 335

Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Arg
 340 345 350

Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro Pro Lys Glu Gln Met
 355 360 365

Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile Thr Asp Phe Phe Pro
 370 375 380

Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly Gln Pro Ala Glu Asn
 385 390 395 400

Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp Gly Ser Tyr Phe Val

405

410⁹⁹

415

Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr
 420 425 430

Phe Thr Cys Ser Val Leu His Glu Gly Leu His Asn His His Thr Glu
 435 440 445

Lys Ser Leu Ser His Ser Pro Gly Lys
 450 455

<210> 80

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M299 Light Chain Protein

<400> 80

Met Gly Ile Lys Met Glu Thr His Ser Gln Val Phe Val Tyr Met Leu
 1 5 10 15

Leu Trp Leu Ser Gly Val Glu Gly Asp Ile Val Met Thr Gln Ser His
 20 25 30

Lys Val Met Ala Thr Ser Val Gly Asp Arg Val Ser Ile Thr Cys Lys
 35 40 45

Ala Ser Gln Asp Val Gly Thr Ala Val Ala Trp Tyr Gln Gln Lys Pro
 50 55 60

Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg His Thr
 65 70 75 80

Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 85 90 95

Leu Thr Ile Asn Asn Val Leu Ser Glu Asp Leu Val Asp Tyr Phe Cys
 100 105 110

Gln Gln Tyr Arg Arg Tyr Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
 115 120 125

Glu Leu Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro

130

135

100

140

Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
 145 150 155 160

Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
 165 170 175

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

Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
 195 200 205

Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
 210 215 220

Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
 225 230 235

<210> 81

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M279H-CDR1

<400> 81

Ser Tyr Gly Ile Phe
 1 5

<210> 82

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M279H-CDR2

<400> 82

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

Gly

<210> 83
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M279H-CDR3

<400> 83

Glu Gly Gly Asp Tyr
 1 5

<210> 84
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M279L-CDR1

<400> 84

Lys Ala Ser Gln Asp Val Gly Thr Ala Val Ala
 1 5 10

<210> 85
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 85

Trp Ala Ser Thr Arg His Thr
 1 5

<210> 86
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M279L-CDR3

<400> 86

Gln Gln Tyr Lys Ser Asn Pro Leu Thr
 1 5

<210> 87

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

<220>
 <223> H2M280H-CDR1

<400> 87

Ser Tyr Ser Met Ser
 1 5

<210> 88
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M280H-CDR2

<400> 88

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

Gly

<210> 89
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M280H-CDR3

<400> 89

Glu Ala Gly Asp Tyr
 1 5

<210> 90
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M280L-CDR1

<400> 90

Lys Ser Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Leu Asn
 1 5 10 15

<210> 91
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M280L-CDR2

<400> 91

Leu Val Ser Lys Leu Asp Ser
 1 5

<210> 92
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M280L-CDR3

<400> 92

Trp Gln Gly Thr His Phe Pro Thr
 1 5

<210> 93
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M281H-CDR1

<400> 93

Ser Tyr Ser Met Ser
 1 5

<210> 94
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M281H-CDR2

<400> 94

Ile Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Tyr Thr Asp Ser Val Lys
 1 5 10 15

Gly

<210> 95
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 95

Glu Ala Gly Asp Tyr
 1 5

<210> 96
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 96

Lys Ser Ser Gln Ser Leu Leu Tyr Ser Asp Gly Lys Thr Tyr Leu Asn
 1 5 10 15

<210> 97
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 97

Leu Val Ser Lys Leu Asp Ser
 1 5

<210> 98
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 98

Trp Gln Gly Thr His Phe Pro Thr
 1 5

<210> 99
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 99

Ser Tyr Met Ile His
 1 5

<210> 100
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 100

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

Asp

<210> 101
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M282H-CDR3

<400> 101

Tyr Asp Tyr Asp Gly Asp
 1 5

<210> 102
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 102

Lys Ser Ser Gln Ser Leu Phe His Ser Asp Gly Arg Thr Phe Leu Asn

1 5 10 106 15

<210> 103
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M282L-CDR2

<400> 103

Lys Val Ser Lys Leu Asp Ser
1 5

<210> 104
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M282L-CDR3

<400> 104

Trp Gln Gly Thr His Phe Pro Trp Thr
1 5

<210> 105
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M283H-CDR1

<400> 105

Ser Tyr Gly Met Ser
1 5

<210> 106
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M283H-CDR2

<400> 106

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

Gly

<210> 107
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M283H-CDR3

<400> 107

Pro Gly Ser Trp Phe Pro Tyr
 1 5

<210> 108
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M283L-CDR1

<400> 108

Lys Ser Ser Gln Ser Leu Leu Asp Ser Asp Gly Lys Thr Tyr Leu His
 1 5 10 15

<210> 109
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M283L-CDR2

<400> 109

Leu Val Ser His Leu Asp Ser
 1 5

<210> 110
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 110

Trp Gln Gly Thr His Phe Pro Gln Thr

1 5

<210> 111
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 111

Thr Ser Gly Val Gly Val Gly
 1 5

<210> 112
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 112

His Ile Trp Trp Asp Asp Asp Lys Asn Tyr Asn Pro Ala Leu Lys Ser
 1 5 10 15

<210> 113
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M284H-CDR3

<400> 113

Ile Glu Gly Gln Lys Gly Phe Ala Tyr
 1 5

<210> 114
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M284L-CDR1

<400> 114

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

Ala

<210> 115
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M284L-CDR2

<400> 115

Trp Ala Ser Thr Arg Glu Ser
 1 5

<210> 116
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M284L-CDR3

<400> 116

Gln Gln Tyr Tyr Ser Ser Pro Tyr Thr
 1 5

<210> 117
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M285H-CDR1

<400> 117

Asn Tyr Gly Ile Phe
 1 5

<210> 118
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M285H-CDR2

<400> 118

Thr Val Lys Ser Asn Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Lys

1 5 10 110 15

Gly

<210> 119
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M285H-CDR3

<400> 119

Glu Gly Gly Asp Tyr
1 5

<210> 120
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M285L-CDR1

<400> 120

Lys Ala Ser Gln Asp Val Gly Thr Ala Val Ala
1 5 10

<210> 121
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M285L-CDR2

<400> 121

Trp Thr Ser Thr Arg His Thr
1 5

<210> 122
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M285L-CDR3

<400> 122

Gln Gln Tyr Asn Arg Asn Pro Leu Thr
 1 5

<210> 123
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M286H-CDR1

<220>
 <221> MISC_FEATURE
 <222> (1)..(5)
 <223> CDR1 has not yet determined

<220>
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 <222> (1)..(5)
 <223> CDR1 has not yet determined. The length of this sequence does not mean the length of actual CDR1.

<220>
 <221> misc_feature
 <222> (6)..(6)
 <223> Xaa can be any naturally occurring amino acid

<400> 123

Xaa Xaa Xaa Xaa Xaa Xaa
 1 5

<210> 124
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M286H-CDR2

<220>
 <221> MISC_FEATURE
 <222> (1)..(10)
 <223> CDR2 has not yet determined. The length of this sequence does not mean the length of actual CDR2.

<400> 124

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10

<210> 125

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

<220>
 <223> H2M286H-CDR3

<220>
 <221> MISC_FEATURE
 <222> (1)..(5)
 <223> CDR3 has not yet determined. The length of this sequence does not mean the length of actual CDR3.

<400> 125

Xaa Xaa Xaa Xaa Xaa
 1 5

<210> 126
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M286L-CDR1

<400> 126

Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His
 1 5 10 15

<210> 127
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M286L-CDR2

<400> 127

Lys Val Ser Asn Arg Phe Ser
 1 5

<210> 128
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M286L-CDR3

<400> 128

Ser Gln Ser Thr His Val Pro Pro Thr
1 5

<210> 129
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M287H-CDR1

<400> 129

Ser Tyr Ser Met Ser
1 5

<210> 130
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M287H-CDR2

<400> 130

Ile Ile Ser Ser Gly Gly Ser Tyr Ile Phe Tyr Pro Asp Ser Val Lys
1 5 10 15

Gly

<210> 131
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M287H-CDR3

<400> 131

Glu Ala Gly Asp Tyr
1 5

<210> 132
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M287L-CDR1

<400> 132

Lys Ser Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Leu Asn
1 5 10 15

<210> 133

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M287L-CDR2

<400> 133

Leu Val Ser Lys Leu Asp Ser
1 5

<210> 134

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M287L-CDR3

<400> 134

Trp Gln Gly Thr His Phe Pro Thr
1 5

<210> 135

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M288H-CDR1

<400> 135

Arg Tyr Ser Leu Ser
1 5

<210> 136

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M288H-CDR2

<400> 136

Val	Ile	Ser	Ser	Gly	Gly	Arg	Tyr	Thr	Phe	Tyr	Pro	Asp	Gly	Val	Lys
1				5					10	115				15	

Gly

<210> 137
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M288H-CDR3

<400> 137

Glu	Ala	Gly	Asp	Tyr
1				5

<210> 138
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M288L-CDR1

<400> 138

Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser	Asp	Gly	Lys	Thr	Tyr	Leu	Asn
1				5					10					15	

<210> 139
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M288L-CDR2

<400> 139

Leu	Val	Ser	Lys	Leu	Asp	Ser
1				5		

<210> 140
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M288L-CDR3

<400> 140

Trp Gln Gly Thr His Phe Pro Thr
1 5

<210> 141

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289H-CDR1

<400> 141

Gly Phe Phe Met Asn
1 5

<210> 142

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289H-CDR2

<400> 142

Arg Ile Asn Pro Tyr Asn Gly Asp Thr Phe Tyr Asn Gln Lys Phe Asn
1 5 10 15

Asp

<210> 143

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289H-CDR3

<400> 143

Ile Ser Gly Asn Tyr Arg Gly Tyr Ala Met Asp Asn
1 5 10

<210> 144

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289L-CDR1

<400> 144

Arg	Ser	Ser	Gln	Thr	Ile	Leu	His	Thr	Asn	Gly	Asn	Thr	Tyr	Leu	Glu
1				5					10					15	

<210> 145

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289L-CDR2

<400> 145

Lys	Val	Ser	Asn	Arg	Phe	Ser
1				5		

<210> 146

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M289L-CDR3

<400> 146

Phe	Gln	Gly	Ser	Arg	Val	Pro	Pro	Thr
1				5				

<210> 147

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290H-CDR1

<400> 147

Ser	Tyr	Ser	Met	Ser
1				5

<210> 148

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290H-CDR2

118

<400> 148

Ile Ile Ser Ser Gly Gly Ser Tyr Ile Phe Tyr Pro Asp Ser Val Lys
1 5 10 15

Gly

<210> 149

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290H-CDR3

<400> 149

Glu Ala Gly Asp Tyr
1 5

<210> 150

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290L-CDR1

<400> 150

Lys Ser Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Leu Asn
1 5 10 15

<210> 151

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290L-CDR2

<400> 151

Leu Val Ser Asn Leu Asp Ser
1 5

<210> 152

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M290L-CDR3

<400> 152

Trp Gln Gly Thr His Phe Pro Thr
1 5

<210> 153

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M291H-CDR1

<400> 153

Gly Tyr Thr Met Asn
1 5

<210> 154

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M291H-CDR2

<400> 154

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

Asp

<210> 155

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M291H-CDR3

<400> 155

Glu Pro Ser Asp Tyr
1 5

<210> 156

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M291L-CDR1

<400> 156

Arg	Ser	Ser	Gln	Ser	Leu	Val	His	Ile	Asn	Gly	Asn	Thr	Tyr	Leu	His
1				5					10					15	

<210> 157

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M291L-CDR2

<400> 157

Lys	Val	Ser	Lys	Arg	Phe	Ser
1				5		

<210> 158

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M291L-CDR3

<400> 158

Ser	Gln	Ser	Thr	His	Val	Pro	Pro	Thr
1				5				

<210> 159

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M292H-CDR1

<400> 159

Gly	Tyr	Thr	Met	Asn
1				5

<210> 160

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

121

<223> H2M292H-CDR2

<400> 160

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

Asp

<210> 161

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M292H-CDR3

<400> 161

Glu Pro Ser Asp Tyr
1 5

<210> 162

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M292L-CDR1

<400> 162

Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 163

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M292L-CDR2

<400> 163

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 164

<211> 9

<212> PRT

<213> Artificial Sequence

<220>
 <223> H2M292L-CDR3

<400> 164

Ser Gln Ser Thr His Val Pro Pro Thr
 1 5

<210> 165
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M293H-CDR1

<400> 165

Asn Tyr Gly Ile Phe
 1 5

<210> 166
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M293H-CDR2

<400> 166

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

Gly

<210> 167
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M293H-CDR3

<400> 167

Glu Gly Gly Asp Tyr
 1 5

<210> 168
 <211> 11

123

<212> PRT
<213> Artificial Sequence

<220>
<223> H2M293L-CDR1

<400> 168

Lys Ala Ser Gln Asp Val Gly Thr Ala Val Ala
1 5 10

<210> 169
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M293L-CDR2

<400> 169

Trp Thr Ser Thr Arg His Ile
1 5

<210> 170
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M293L-CDR3

<400> 170

Gln Gln Tyr Ser Lys Asn Pro Leu Thr
1 5

<210> 171
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M294H-CDR1

<400> 171

Ser Tyr Gly Met Ser
1 5

<210> 172
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<223> H2M294H-CDR2

<400> 172

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

Gly

<210> 173

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M294H-CDR3

<400> 173

Pro	Gly	Ser	Trp	Phe	Pro	Tyr
1				5		

<210> 174

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M294L-CDR1

<400> 174

Lys	Ser	Ser	Gln	Ser	Leu	Leu	Asp	Ser	Asp	Gly	Lys	Thr	Tyr	Leu	His
1				5					10					15	

<210> 175

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> H2M294L-CDR2

<400> 175

Leu	Val	Ser	Lys	Leu	Asp	Ser
1				5		

<210> 176

<211> 9

<212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M294L-CDR3

<400> 176

Trp Gln Gly Thr His Phe Pro Gln Thr
 1 5

<210> 177
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M295H-CDR1

<400> 177

Gly Tyr Thr Met Asn
 1 5

<210> 178
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M295H-CDR2

<400> 178

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

Gly

<210> 179
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 179

Glu Pro Ser Asp Tyr
 1 5

<210> 180
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M295L-CDR1

<400> 180

Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His
 1 5 10 15

<210> 181
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 181

Lys Val Ser Lys Arg Phe Ser
 1 5

<210> 182
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M295L-CDR3

<400> 182

Ser Gln Ser Ser His Val Pro Pro Thr
 1 5

<210> 183
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M296H-CDR1

<400> 183

Thr Ser Gly Met Gly Val Gly
 1 5

<210> 184
 <211> 16

127

<212> PRT
<213> Artificial Sequence

<220>
<223> H2M296H-CDR2

<400> 184

His Ile Trp Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ala Leu Lys Ser
1 5 10 15

<210> 185
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M296H-CDR3

<400> 185

Ile Glu Gly Gln Arg Gly Phe Ala Tyr
1 5

<210> 186
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M296L-CDR1

<400> 186

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

Ala

<210> 187
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M296L-CDR2

<400> 187

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 188
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M296L-CDR3

<400> 188

Gln Gln Tyr Tyr Ser Gln Pro Tyr Thr
 1 5

<210> 189
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M297H-CDR1

<400> 189

Ser Tyr Gly Ile Phe
 1 5

<210> 190
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M297H-CDR2

<400> 190

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

Gly

<210> 191
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M297H-CDR3

<400> 191

Glu Gly Gly Asp Tyr
 1 5

<210> 192
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M297L-CDR1

<400> 192

Arg	Ser	Ser	Gln	Ser	Val	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu
1				5					10					15	

<210> 193
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M297L-CDR2

<400> 193

Lys	Val	Ser	Asn	Arg	Phe	Ser
1				5		

<210> 194
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M297L-CDR3

<400> 194

Phe	Gln	Gly	Ser	Arg	Val	Pro	Pro	Thr
1				5				

<210> 195
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M298H-CDR1

<400> 195

Arg	Tyr	Ser	Met	Ser
1				5

<210> 196
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M298H-CDR2

<400> 196

Ile	Ile	Ser	Thr	Gly	Gly	Ser	Tyr	Met	Phe	Tyr	Pro	Asp	Ser	Ala	Lys
1				5					10					15	

Gly

<210> 197
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M298H-CDR3

<400> 197

Glu	Ala	Gly	Asp	Tyr
1			5	

<210> 198
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M298L-CDR1

<400> 198

Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser	Asp	Gly	Lys	Thr	Tyr	Leu	Asn
1				5					10					15	

<210> 199
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M298L-CDR2

<400> 199

Leu	Val	Ser	Lys	Leu	Asp	Ser
1				5		

<210> 200
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M298L-CDR3

<400> 200

Trp Gln Gly Thr His Phe Pro Thr
 1 5

<210> 201
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M299H-CDR1

<400> 201

Ile Tyr Gly Ile Phe
 1 5

<210> 202
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M299H-CDR2

<400> 202

Thr Ile His Ser Asn Gly Gly Arg Ile Tyr Tyr Pro Asp Ser Val Lys
 1 5 10 15

Gly

<210> 203
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2M299H-CDR3

<400> 203

Glu Gly Gly Asp Tyr
1 5

<210> 204
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M299L-CDR1

<400> 204

Lys Ala Ser Gln Asp Val Gly Thr Ala Val Ala
1 5 10

<210> 205
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M299L-CDR2

<400> 205

Trp Ala Ser Thr Arg His Thr
1 5

<210> 206
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> H2M299L-CDR3

<400> 206

Gln Gln Tyr Arg Arg Tyr Pro Leu Thr
1 5