SEQUENCE LISTING

<110> Tsinghua University
Protgen Ltd

<120> A New Tumor Biomarker

<130> P2010653C

<160> 20

<170> PatentIn version 3.3

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Ile Ile Asn Thr Phe Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu
        35                  40                  45

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

Ile Pro Asn Lys Gln Asp Arg Thr Leu Thr Ile Val Asp Thr Gly Ile
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Gly Met Thr Lys Ala Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys
            100                 105                 110

Ser Gly Thr Lys Ala Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile
        115                 120                 125

Ser Met Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val
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Ala Glu Lys Val Thr Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr
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Ala Trp Glu Ser Ser Ala Gly Gly Ser Phe Thr Val Arg Thr Asp Thr
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Gly Glu Pro Met Gly Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu
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Lys His Ser Gln Phe Ile Gly Tyr Pro Ile Thr Leu Phe Val Glu Lys
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Glu Arg Asp Lys Glu Val Ser Asp Asp Glu Ala Glu Glu Lys Glu Asp
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Lys Glu Glu Glu Lys Glu Lys Glu Glu Lys Glu Ser Glu Asp Lys Pro
                245                 250                 255

Glu Ile Glu Asp Val Gly Ser Asp Glu Glu Glu Glu Lys Lys Asp Gly
            260                 265                 270

Asp Lys Lys Lys Lys Lys Lys Ile Lys Glu Lys Tyr Ile Asp Gln Glu
        275                 280                 285

Glu Leu Asn Lys Thr Lys Pro Ile Trp Thr Arg Asn Pro Asp Asp Ile
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Thr Asn Glu Glu Tyr Gly Glu Phe Tyr Lys Ser Leu Thr Asn Asp Trp
305                 310                 315                 320

Glu Asp His Leu Ala Val Lys His Phe Ser Val Glu Gly Gln Leu Glu
                325                 330                 335

Phe Arg Ala Leu Leu Phe Val Pro Arg Arg Ala Pro Phe Asp Leu Phe
            340                 345                 350

Glu Asn Arg Lys Lys Lys Asn Asn Ile Lys Leu Tyr Val Arg Arg Val
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Phe Ile Met Asp Asn Cys Glu Glu Leu Ile Pro Glu Tyr Leu Asn Phe
    370                 375                 380

Ile Arg Gly Val Val Asp Ser Glu Asp Leu Pro Leu Asn Ile Ser Arg
385                 390                 395                 400

Glu Met Leu Gln Gln Ser Lys Ile Leu Lys Val Ile Arg Lys Asn Leu
                405                 410                 415

Val Lys Lys Cys Leu Glu Leu Phe Thr Glu Leu Ala Glu Asp Lys Glu
            420                 425                 430

Asn Tyr Lys Lys Phe Tyr Glu Gln Phe Ser Lys Asn Ile Lys Leu Gly
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Ile His Glu Asp Ser Gln Asn Arg Lys Lys Leu Ser Glu Leu Leu Arg
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Tyr Tyr Thr Ser Ala Ser Gly Asp Glu Met Val Ser Leu Lys Asp Tyr
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Gln Glu Glu Lys Lys Thr Lys Phe Glu Asn Leu Cys Lys Ile Met Lys
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Asp Ile Leu Glu Lys Lys Val Glu Lys Val Val Val Ser Asn Arg Leu
            580                 585                 590

Val Thr Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala
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Asn Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr
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625                 630                 635                 640

Ser Ile Ile Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Lys Asn Asp
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Lys Ser Val Lys Asp Leu Val Ile Leu Leu Tyr Glu Thr Ala Leu Leu
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Ser Ser Gly Phe Ser Leu Glu Asp Pro Gln Thr His Ala Asn Arg Ile
        675                 680                 685

Tyr Arg Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Asp Pro Thr
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Ile Ser Asn Ser Ser Asp Ala Leu Asp Lys Ile Arg Tyr Glu Thr Leu
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Gly Glu Pro Met Gly Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu
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Lys Glu Glu Glu Lys Glu Lys Glu Glu Lys Glu Ser Glu Asp Lys Pro
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Glu Ile Glu Asp Val Gly Ser Asp Glu Glu Glu Glu Lys Lys Asp Gly
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Asp Lys Lys Lys Lys Lys Lys Ile Lys Glu Lys Tyr Ile Asp Gln Glu
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Thr Asn Glu Glu Tyr Gly Glu Phe Tyr Lys Ser Leu Thr Asn Asp Trp
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Phe Ile Met Asp Asn Cys Glu Glu Leu Ile Pro Glu Tyr Leu Asn Phe
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Ile Arg Gly Val Val Asp Ser Glu Asp Leu Pro Leu Asn Ile Ser Arg
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Glu Met Leu Gln Gln Ser Lys Ile Leu Lys Val Ile Arg Lys Asn Leu
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Val Lys Lys Cys Leu Glu Leu Phe Thr Glu Leu Ala Glu Asp Lys Glu
            420                 425                 430

Asn Tyr Lys Lys Phe Tyr Glu Gln Phe Ser Lys Asn Ile Lys Leu Gly
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Ile His Glu Asp Ser Gln Asn Arg Lys Lys Leu Ser Glu Leu Leu Arg
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Cys Thr Arg Met Lys Glu Asn Gln Lys His Ile Tyr Tyr Ile Thr Gly
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Glu Thr Lys Asp Gln Val Ala Asn Ser Ala Phe Val Glu Arg Leu Arg
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Lys His Gly Leu Glu Val Ile Tyr Met Ile Glu Pro Ile Asp Glu Tyr
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Cys Val Gln Gln Leu Lys Glu Phe Glu Gly Lys Thr Leu Val Ser Val
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Thr Lys Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu Glu Lys Lys Lys
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Gln Glu Glu Lys Lys Thr Lys Phe Glu Asn Leu Cys Lys Ile Met Lys
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Asp Ile Leu Glu Lys Lys Val Glu Lys Val Val Val Ser Asn Arg Leu
            580                 585                 590

Val Thr Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala
        595                 600                 605

Asn Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr
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Met Gly Tyr Met Ala Ala Lys Lys His Leu Glu Ile Asn Pro Asp His
625                 630                 635                 640

Ser Ile Ile Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Lys Asn Asp
                645                 650                 655

Lys Ser Val Lys Asp Leu Val Ile Leu Leu Tyr Glu Thr Ala Leu Leu
            660                 665                 670

Ser Ser Gly Phe Ser Leu Glu Asp Pro Gln Thr His Ala Asn Arg Ile
        675                 680                 685

Tyr Arg Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Asp Pro Thr
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Ala Asp Asp Thr Ser Ala Ala Val Thr Glu Glu Met Pro Pro Leu Glu
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Gly Asp Asp Asp Thr Ser Arg Met Glu Glu Val Asp
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gctttgcagg ctggtgcaga tatctctatg attggccagt tcggtgttgg tttttattct 420

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35 40 45

Lys Phe Tyr Ser Gln Ala Ile Glu Leu Asn Pro Ser Asn Ala Ile Tyr
50 55 60

Tyr Gly Asn Arg Ser Leu Ala Tyr Leu Arg Thr Glu Cys Tyr Gly Tyr
65 70 75 80

Ala Leu Gly Asp Ala Thr Arg Ala Ile Glu Leu Asp Lys Lys Tyr Ile
85 90 95

Lys Gly Tyr Tyr Arg Arg Ala Ala Ser Asn Met Ala Leu Gly Lys Phe
100 105 110

Arg Ala Ala Leu Arg Asp Tyr Glu Thr Val Val Lys Val Lys Pro His
115 120 125

Asp Lys Asp Ala Lys Met Lys Tyr Gln Glu Cys Asn Lys Ile Val Lys
130 135 140

Gln Lys Ala Phe Glu Arg Ala Ile Ala Gly Asp Glu His Lys Arg Ser
145 150 155 160

Val Val Asp Ser Leu Asp Ile Glu Ser Met Thr Ile Glu Asp Glu Tyr
165 170 175

Ser Gly Pro Lys Leu Glu Asp Gly Lys Val Thr Ile Ser Phe Met Lys
180 185 190

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Glu Leu Met Gln Trp Tyr Lys Asp Gln Lys Lys Leu His Arg Lys Cys
        195                 200                 205

Ala Tyr Gln Ile Leu Val Gln Val Lys Glu Val Leu Ser Lys Leu Ser
    210                 215                 220

Thr Leu Val Glu Thr Thr Leu Lys Glu Thr Glu Lys Ile Thr Val Cys
225                 230                 235                 240

Gly Asp Thr His Gly Gln Phe Tyr Asp Leu Leu Asn Ile Phe Glu Leu
                245                 250                 255

Asn Gly Leu Pro Ser Glu Thr Asn Pro Tyr Ile Phe Asn Gly Asp Phe
            260                 265                 270

Val Asp Arg Gly Ser Phe Ser Val Glu Val Ile Leu Thr Leu Phe Gly
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Phe Lys Leu Leu Tyr Pro Asp His Phe His Leu Leu Arg Gly Asn His
    290                 295                 300

Glu Thr Asp Asn Met Asn Gln Ile Tyr Gly Phe Glu Gly Glu Val Lys
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Ala Lys Tyr Thr Ala Gln Met Tyr Glu Leu Phe Ser Glu Val Phe Glu
                325                 330                 335

Trp Leu Pro Leu Ala Gln Cys Ile Asn Gly Lys Val Leu Ile Met His
            340                 345                 350

Gly Gly Leu Phe Ser Glu Asp Gly Val Thr Leu Asp Asp Ile Arg Lys
        355                 360                 365

Ile Glu Arg Asn Arg Gln Pro Pro Asp Ser Gly Pro Met Cys Asp Leu
    370                 375                 380

Leu Trp Ser Asp Pro Gln Pro Gln Asn Gly Arg Ser Ile Ser Lys Arg
385                 390                 395                 400

Gly Val Ser Cys Gln Phe Gly Pro Asp Val Thr Lys Ala Phe Leu Glu
                405                 410                 415

Glu Asn Asn Leu Asp Tyr Ile Ile Arg Ser His Glu Val Lys Ala Glu
            420                 425                 430

Gly Tyr Glu Val Ala His Gly Gly Arg Cys Val Thr Val Phe Ser Ala
        435                 440                 445

Pro Asn Tyr Cys Asp Gln Met Gly Asn Lys Ala Ser Tyr Ile His Leu
    450                 455                 460
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Gln Gly Ser Asp Leu Arg Pro Gln Phe His Gln Phe Thr Ala Val Pro
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