SEQUENCE LISTING

<110> Singapore Health Services Pte. Ltd.

<120> METHODS OF DIAGNOSING LIVER CANCER IN A SUBJECT AND A KIT FOR DIAGNOSING LIVER CANCER

<130> P0305-WO

<150> US 61/704425
<151> 2012-09-21

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<170> PatentIn version 3.5

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1 5 10 15

Lys Ala Val Lys Ile Arg Glu Arg Thr Pro Glu Asp Ile Phe Lys Pro
20 25 30

Thr Asn Gly Ile Ile His His Phe Lys Thr Met His Arg Tyr Thr Leu
35 40 45

Glu Met Phe Arg Thr Cys Gln Phe Cys Pro Gln Phe Arg Glu Ile Ile

```
    50                  55                  60

His Lys Ala Leu Ile Asp Arg Asn Ile Gln Ala Thr Leu Glu Ser Gln
65                  70                  75                  80

Lys Lys Leu Asn Trp Cys Arg Glu Val Arg Lys Leu Val Ala Leu Lys
                85                  90                  95

Thr Asn Gly Asp Gly Asn Cys Leu Met His Ala Thr Ser Gln Tyr Met
            100                 105                 110

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

Thr Leu Lys Glu Thr Asp Thr Arg Asn Phe Lys Phe Arg Trp Gln Leu
    130                 135                 140

Glu Ser Leu Lys Ser Gln Glu Phe Val Glu Thr Gly Leu Cys Tyr Asp
145                 150                 155                 160

Thr Arg Asn Trp Asn Asp Glu Trp Asp Asn Leu Ile Lys Met Ala Ser
                165                 170                 175

Thr Asp Thr Pro Met Ala Arg Ser Gly Leu Gln Tyr Asn Ser Leu Glu
            180                 185                 190

Glu Ile His Ile Phe Val Leu Cys Asn Ile Leu Arg Arg Pro Ile Ile
        195                 200                 205

Val Ile Ser Asp Lys Met Leu Arg Ser Leu Glu Ser Gly Ser Asn Phe
    210                 215                 220

Ala Pro Leu Lys Val Gly Gly Ile Tyr Leu Pro Leu His Trp Pro Ala
225                 230                 235                 240

Gln Glu Cys Tyr Arg Tyr Pro Ile Val Leu Gly Tyr Asp Ser His His
                245                 250                 255

Phe Val Pro Leu Val Thr Leu Lys Asp Ser Gly Pro Glu Ile Arg Ala
            260                 265                 270

Val Pro Leu Val Asn Arg Asp Arg Gly Arg Phe Glu Asp Leu Lys Val
        275                 280                 285

His Phe Leu Thr Asp Pro Glu Asn Glu Met Lys Glu Lys Leu Leu Lys
    290                 295                 300
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Glu Tyr Leu Met Val Ile Glu Ile Pro Val Gln Gly Trp Asp His Gly
305 310 315 320

Thr Thr His Leu Ile Asn Ala Ala Lys Leu Asp Glu Ala Asn Leu Pro
325 330 335

Lys Glu Ile Asn Leu Val Asp Asp Tyr Phe Glu Leu Val Gln His Glu
340 345 350

Tyr Lys Lys Trp Gln Glu Asn Ser Glu Gln Gly Arg Arg Glu Gly His
355 360 365

Ala Gln Asn Pro Met Glu Pro Ser Val Pro Gln Leu Ser Leu Met Asp
370 375 380

Val Lys Cys Glu Thr Pro Asn Cys Pro Phe Phe Met Ser Val Asn Thr
385 390 395 400

Gln Pro Leu Cys His Glu Cys Ser Glu Arg Arg Gln Lys Asn Gln Asn
405 410 415

Lys Leu Pro Lys Leu Asn Ser Lys Pro Gly Pro Glu Gly Leu Pro Gly
420 425 430

Met Ala Leu Gly Ala Ser Arg Gly Glu Ala Tyr Glu Pro Leu Ala Trp
435 440 445

Asn Pro Glu Glu Ser Thr Gly Gly Pro His Ser Ala Pro Pro Thr Ala
450 455 460

Pro Ser Pro Phe Leu Phe Ser Glu Thr Thr Ala Met Lys Cys Arg Ser
465 470 475 480

Pro Gly Cys Pro Phe Thr Leu Asn Val Gln His Asn Gly Phe Cys Glu
485 490 495

Arg Cys His Asn Ala Arg Gln Leu His Ala Ser His Ala Pro Asp His
500 505 510

Thr Arg His Leu Asp Pro Gly Lys Cys Gln Ala Cys Leu Gln Asp Val
515 520 525

Thr Arg Thr Phe Asn Gly Ile Cys Ser Thr Cys Phe Lys Arg Thr Thr
530 535 540

Ala Glu Ala Ser Ser Ser Leu Ser Thr Ser Leu Pro Pro Ser Cys His
545 550 555 560

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Gln Arg Ser Lys Ser Asp Pro Ser Arg Leu Val Arg Ser Pro Ser Pro
                565                 570                 575

His Ser Cys His Arg Ala Gly Asn Asp Ala Pro Ala Gly Cys Leu Ser
            580                 585                 590

Gln Ala Ala Arg Thr Pro Gly Asp Arg Thr Gly Thr Ser Lys Cys Arg
        595                 600                 605

Lys Ala Gly Cys Val Tyr Phe Gly Thr Pro Glu Asn Lys Gly Phe Cys
    610                 615                 620

Thr Leu Cys Phe Ile Glu Tyr Arg Glu Asn Lys His Phe Ala Ala Ala
625                 630                 635                 640

Ser Gly Lys Val Ser Pro Thr Ala Ser Arg Phe Gln Asn Thr Ile Pro
                645                 650                 655

Cys Leu Gly Arg Glu Cys Gly Thr Leu Gly Ser Thr Met Phe Glu Gly
            660                 665                 670

Tyr Cys Gln Lys Cys Phe Ile Glu Ala Gln Asn Gln Arg Phe His Glu
        675                 680                 685

Ala Lys Arg Thr Glu Glu Gln Leu Arg Ser Ser Gln Arg Arg Asp Val
    690                 695                 700

Pro Arg Thr Thr Gln Ser Thr Ser Arg Pro Lys Cys Ala Arg Ala Ser
705                 710                 715                 720

Cys Lys Asn Ile Leu Ala Cys Arg Ser Glu Glu Leu Cys Met Glu Cys
                725                 730                 735

Gln His Pro Asn Gln Arg Met Gly Pro Gly Ala His Arg Gly Glu Pro
            740                 745                 750

Ala Pro Glu Asp Pro Pro Lys Gln Arg Cys Arg Ala Pro Ala Cys Asp
        755                 760                 765

His Phe Gly Asn Ala Lys Cys Asn Gly Tyr Cys Asn Glu Cys Phe Gln
    770                 775                 780

Phe Lys Gln Met Tyr Gly
785                 790
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<212> PRT
<213> Homo sapiens

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Met Arg Ala Pro Leu Leu Pro Pro Ala Pro Val Val Leu Ser Leu Leu
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Ile Leu Gly Ser Gly His Tyr Ala Ala Gly Leu Asp Leu Asn Asp Thr
            20                  25                  30

Tyr Ser Gly Lys Arg Glu Pro Phe Ser Gly Asp His Ser Ala Asp Gly
        35                  40                  45

Phe Glu Val Thr Ser Arg Ser Glu Met Ser Ser Gly Ser Glu Ile Ser
    50                  55                  60

Pro Val Ser Glu Met Pro Ser Ser Ser Glu Pro Ser Ser Gly Ala Asp
65                  70                  75                  80

Tyr Asp Tyr Ser Glu Glu Tyr Asp Asn Glu Pro Gln Ile Pro Gly Tyr
                85                  90                  95

Ile Val Asp Asp Ser Val Arg Val Glu Gln Val Val Lys Pro Pro Gln
            100                 105                 110

Asn Lys Thr Glu Ser Glu Asn Thr Ser Asp Lys Pro Lys Arg Lys Lys
        115                 120                 125

Lys Gly Gly Lys Asn Gly Lys Asn Arg Arg Asn Arg Lys Lys Lys Asn
    130                 135                 140

Pro Cys Asn Ala Glu Phe Gln Asn Phe Cys Ile His Gly Glu Cys Lys
145                 150                 155                 160

Tyr Ile Glu His Leu Glu Ala Val Thr Cys Lys Cys Gln Gln Glu Tyr
                165                 170                 175

Phe Gly Glu Arg Cys Gly Glu Lys Ser Met Lys Thr His Ser Met Ile
            180                 185                 190

Asp Ser Ser Leu Ser Lys Ile Ala Leu Ala Ala Ile Ala Ala Phe Met
        195                 200                 205

Ser Ala Val Ile Leu Thr Ala Val Ala Val Ile Thr Val Gln Leu Arg
    210                 215                 220

Arg Gln Tyr Val Arg Lys Tyr Glu Gly Glu Ala Glu Glu Arg Lys Lys
225                 230                 235                 240
```

```
Leu Arg Gln Glu Asn Gly Asn Val His Ala Ile Ala
                245                 250


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<213>  Homo sapiens

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Met Asn Asn Met Leu Asp Ile Trp Gln Ser Arg Leu Gln Glu His Ile
1               5                  10                  15

Lys Glu Thr Arg Thr Tyr Met Lys Tyr Met Leu Asn Asp His Leu Val
            20                  25                  30

Ile Val Leu Ile Phe Phe Leu Ala Gly Ala Ala Ser Trp Tyr Ser Lys
        35                  40                  45

Trp Ile Arg Asp Ile Pro Ala His Phe Pro Ser Phe Trp Val Met Ala
    50                  55                  60

Val Leu Phe Ser Leu Val Leu Thr Ser Ser Tyr Val Arg Thr Leu Leu
65                  70                  75                  80

Lys Glu Ala Asp Leu Val Phe Leu Leu Pro Leu Glu Ala Lys Met Glu
                85                  90                  95

Pro Tyr Leu Lys Gln Ala Phe Val Tyr Ser Tyr Val Ser Gln Leu Phe
            100                 105                 110

Pro Leu Ile Ala Leu Ser Ile Val Ala Met Pro Leu Tyr Phe Ala Val
        115                 120                 125

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

Leu Leu Leu Lys Ala Trp Asn Gln Val Met Glu Trp Arg Thr Thr Phe
145                 150                 155                 160

Gln Asn Asp Arg Ser Met Lys Arg Met Asp Val Ile Ile Arg Phe Ala
                165                 170                 175

Ala Asn Thr Leu Val Leu Tyr Phe Val Phe Gln Ser Val Tyr Met Tyr
            180                 185                 190

Ala Leu Leu Val Tyr Val Ile Met Ala Val Leu Tyr Leu Tyr Met Ser
        195                 200                 205
```

```
Ser Ala Ala Lys Arg Lys Thr Phe Lys Trp Glu Ser His Ile Glu Ser
    210                 215                 220

Glu Leu Arg Arg Lys Gln Arg Phe Tyr Arg Ile Ala Asn Leu Phe Thr
225                 230                 235                 240

Asp Val Pro His Leu Arg Lys Gln Ala Lys Arg Arg Ala Tyr Leu Asp
                245                 250                 255

Phe Leu Leu Arg Leu Val Pro Phe Glu Gln Arg Lys Thr Phe Ala Tyr
            260                 265                 270

Met Phe Thr Arg Ala Phe Leu Arg Ser Ser Asp Tyr Leu Gly Ile Leu
        275                 280                 285

Val Arg Leu Thr Ile Val Phe Ala Leu Ile Ile Met Tyr Val Ser Ala
    290                 295                 300

Ser Pro Leu Ile Ala Ala Val Leu Thr Val Phe Ala Ile Phe Ile Thr
305                 310                 315                 320

Gly Ile Gln Leu Leu Pro Leu Phe Gly His Phe Asp His Leu Ala Leu
                325                 330                 335

Gln Glu Leu Tyr Pro Val Gln Lys Glu Thr Lys Leu Lys Ser Tyr Phe
            340                 345                 350

Ser Leu Leu Lys Thr Ala Leu Ser Ile Gln Ala Leu Leu Met Ser Val
        355                 360                 365

Ala Ser Ala Tyr Ala Ala Gly Leu Thr Gly Phe Leu Tyr Ala Leu Ile
    370                 375                 380

Gly Ser Ala Val Leu Ile Phe Val Val Leu Pro Ala Tyr Met Thr Thr
385                 390                 395                 400

Arg Leu Lys Lys His Gly Lys Leu
                405
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