

SEQUENCE LISTING

<110> LUCENCE LIFE SCIENCES PTE. LTD.

<120> METHOD FOR DETECTION AND QUANTIFICATION OF GENETIC ALTERATIONS

<130> 36425SG50

<150> 10201805450Y

<151> 2018-06-25

<160> 43

<170> PatentIn version 3.5

<210> 1

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> barcode sequence

<220>

<221> misc_feature

<222> (1)..(10)

<223> n is a, c, g, or t

<400> 1

nnnnnnnnnn

10

<210> 2

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> an example of the barcode sequence

<400> 2

cattacatac

10

<210> 3

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> an example of the barcode sequence

<400> 3

gcgtggacaa

10

<210> 4

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> an example of the barcode sequence

<400> 4

tttttagaca

10

<210> 5

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> an example of the barcode sequence

<400> 5

taagaggtcc

10

<210> 6

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> an example of a "primer" when the target sequence is EGFR-exon 18
1 (an example of primer A, illustrated in Figure 1a)

<220>

<221> misc_feature

<222> (21)..(30)

<223> n is a, c, g, or t

<400> 6

acacgacgct cttccgatct nnnnnnnnnn ggtgaccctt gtctctgtgt tc

52

<210> 7
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>

<223> an example of subsequent primers for the "completion of amplicon"
 (an example of primer C, illustrated in Figure 1c)

<400> 7
 gacgtgtgct cttccgatct gagcccagca ctttgatctt ttt 43

<210> 8
 <211> 178
 <212> DNA
 <213> Artificial Sequence

<220>

<223> one example of expected amplicon (only target-specific region)

<400> 8
 ggtgaccctt gtctctgtgt tcgagcccag cactttgatc tttttggtga cccttgtctc 60
 tgtgttcttg tcccccccag cttgtggagc ctcttacacc cagtggagaa gctcccaacc 120
 aagctctctt gaggatcttg aaggaaactg aattcaaaaa gatcaaagtg ctgggctc 178

<210> 9
 <211> 183
 <212> DNA
 <213> Artificial Sequence

<220>

<223> an example of the product after amplicon completion (in two
 steps) (only one strand of the double stranded product is shown)

<220>
 <221> misc_feature
 <222> (21)..(30)
 <223> n is a, c, g, or t

<400> 9
 acacgacgct cttccgatct nnnnnnnnnn ggtgaccctt gtctctgtgt tcttgtcccc 60
 cccagcttgt ggagcctctt acaccagtg gagaagctcc caaccaagct ctcttgagga 120
 tcttgaagga aactgaattc aaaaagatca aagtgtctggg ctcatatcgg aagagcacac 180

gtc 183

<210> 10
 <211> 58
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Universal amplification primer 1 (an example of the primer for
 amplifying product C or D)

<400> 10
 aatgatacgg cgaccaccga gatctacact ctttcctac acgacgctct tccgatct 58

<210> 11
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Universal amplification primer 2 (indexed) (an example of the
 primer for amplifying product C or D, the index is the bases in
 bold and italic font)

<400> 11
 caagcagaag acggcatacg agatatcacg gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 12
 <211> 265
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> an example of the final product (suitable for sequencing on
 Illumina)

<220>
 <221> misc_feature
 <222> (59)..(68)
 <223> n is a, c, g, or t

<400> 12
 aatgatacgg cgaccaccga gatctacact ctttcctac acgacgctct tccgatctnn 60

nnnnnnnnngg tgacccttgt ctctgtgttc ttgtccccc cagcttgtgg agcctcttac 120
 acccagtgga gaagctccca accaagctct cttgaggatc ttgaaggaaa ctgaattcaa 180
 aaagatcaaa gtgctgggct cagatcggaa gagcacacgt ctgaactcca gtcaccgtga 240
 tatctcgtat gccgtcttct gcttg 265

<210> 13
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> a universal P5 adapter

<400> 13
 aatgatacgg cgaccaccga gatct 25

<210> 14
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> an indexed P7 adapter

<400> 14
 caagcagaag acggcatacg agat 24

<210> 15
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> sequence of P7 adapter and sample index, P7 adapter R-ID1

<400> 15
 caagcagaag acggcatacg agatatcacg gtgactggag ttcagacgtg tgctcttccg 60
 atct 64

<210> 16
 <211> 64

<212> DNA
 <213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID2

<400> 16
 caagcagaag acggcatacg agatcgatgt gtgactggag ttcagacgtg tgctcttccg 60
 atct 64

<210> 17
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID3

<400> 17
 caagcagaag acggcatacg agatttaggc gtgactggag ttcagacgtg tgctcttccg 60
 atct 64

<210> 18
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID4

<400> 18
 caagcagaag acggcatacg agattgacca gtgactggag ttcagacgtg tgctcttccg 60
 atct 64

<210> 19
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID5

<400> 19
 caagcagaag acggcatacg agatacagtg gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 20
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> sequence of P7 adapter and sample index, P7 adapter R-ID6

<400> 20
 caagcagaag acggcatacg agatgccaat gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 21
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> sequence of P7 adapter and sample index, P7 adapter R-ID7

<400> 21
 caagcagaag acggcatacg agatcagatc gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 22
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> sequence of P7 adapter and sample index, P7 adapter R-ID8

<400> 22
 caagcagaag acggcatacg agatacttga gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 23
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID9

<400> 23

caagcagaag acggcatacg agatgatcag gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 24

<211> 64

<212> DNA

<213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID10

<400> 24

caagcagaag acggcatacg agattagctt gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 25

<211> 64

<212> DNA

<213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID11

<400> 25

caagcagaag acggcatacg agatggctac gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 26

<211> 64

<212> DNA

<213> Artificial Sequence

<220>

<223> sequence of P7 adapter and sample index, P7 adapter R-ID12

<400> 26

caagcagaag acggcatacg agatcttgta gtgactggag ttcagacgtg tgctcttccg 60

atct 64

<210> 27
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> sequence of P7 adapter and sample index, P7 adapter R-ID13

<400> 27
 caagcagaag acggcatacg agatagtcaa gtgactggag ttcagacgtg tgctcttccg 60
 atct 64

<210> 28
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> sequence of P7 adapter and sample index, P7 adapter R-ID14

<400> 28
 caagcagaag acggcatacg agatagttcc gtgactggag ttcagacgtg tgctcttccg 60
 atct 64

<210> 29
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> artificial sequence- before deletion of homopolymeric region

<400> 29
 gcgaaaaaaaa aaaaaaaaaata 20

<210> 30
 <211> 8
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> artificial sequence- after deletion of homopolymeric region

<400> 30
gcgaaata 8

<210> 31
<211> 58
<212> DNA
<213> Artificial Sequence

<220>
<223> sequence containing universal P5 adapter

<400> 31
aatgatacgg cgaccaccga gatctacact ctttcctac acgacgctct tccgatct 58

<210> 32
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> example of primer B

<220>
<221> misc_feature
<222> (21)..(30)
<223> n is a, c, g, or t

<400> 32
acacgacgct cttccgatct nnnnnnnnnn ggtgaccctt gtctctgtgt tc 52

<210> 33
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> example of product A

<220>
<221> misc_feature
<222> (21)..(30)
<223> n is a, c, g, or t

<400> 33
acacgacgct cttccgatct nnnnnnnnnn ggtgaccctt gtctctgtgt tc 52

<210> 34
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> target captured region

<400> 34
 actgggtgta agaggctcca caagctgggg gggacaagaa cacagagaca agggtcacc 59

<210> 35
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> example of a double stranded oligonucleotide comprising a
 nucleotide overhang

<400> 35
 gatcggaaga gcacacgtc 19

<210> 36
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> example of a double stranded oligonucleotide comprising a
 nucleotide overhang

<400> 36
 gacgtgtgct cttccgatct 20

<210> 37
 <211> 106
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> example of Product D

<220>

<221> misc_feature
 <222> (21)..(30)
 <223> n is a, c, g, or t

<400> 37
 acacgacgct cttccgatct nnnnnnnnnn ggtgaccctt gtctctgtgt tcgtcgaaca 60
 cctcggagaa tgtgggtcac ctcttcagat cggaagagca cacgtc 106

<210> 38
 <211> 76
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> example of Product D

<400> 38
 gacgtgtgct cttccgatct gaagagggtga cccacattct ccgagggtgtt cgacgaacac 60
 agagacaagg gtcacc 76

<210> 39
 <211> 86
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> example of Product C - forward 5' segment

<220>
 <221> misc_feature
 <222> (21)..(30)
 <223> n is a, c, g, or t

<400> 39
 acacgacgct cttccgatct nnnnnnnnnn ggtgaccctt gtctctgtgt tcgtcgaaca 60
 cctcggagaa tgtgggtcac ctcttc 86

<210> 40
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>

<223> example of Product C - forward 3' segment

<400> 40

agatcggaag agcacacgtc 20

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> example of Product C - reverse 5' segment

<400> 41

gacgtgtgct cttccgatct 20

<210> 42

<211> 86

<212> DNA

<213> Artificial Sequence

<220>

<223> example of Product C - reverse 3' segment

<220>

<221> misc_feature

<222> (57)..(66)

<223> n is a, c, g, or t

<400> 42

gaagaggtga cccacattct ccgaggtgtt cgacgaacac agagacaagg gtcaccnnnn 60

nnnnnnnagat cggaagagcg tcgtgt 86

<210> 43

<211> 188

<212> DNA

<213> Artificial Sequence

<220>

<223> example of the amplification result of either Product C or Product D.

<220>

<221> misc_feature

<222> (59)..(68)

<223> n is a, c, g, or t

<400> 43

aatgatacgg cgaccaccga gatctacact ctttcctac acgacgctct tccgatctnn 60

nnnnnnnngg tgacccttgt ctctgtgttc gtcgaacacc tcggagaatg tgggtcacct 120

cttcagatcg gaagagcaca cgtctgaact ccagtcaccg tgatatctcg tatgccgtct 180

tctgcttg 188