SEQUENCE LISTING

<110> LUCENCE LIFE SCIENCES PTE. LTD.

<120> METHOD FOR DETECTION AND QUANTIFICATION OF GENETIC ALTERATIONS

<130> 36425SG50

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<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 tccccccag 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 acacccagtg gagaagctcc caaccaagct ctcttgagga 120

tcttgaagga aactgaattc aaaaagatca aagtgctggg ctcagatcgg 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 ctttccctac 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 ctttccctac acgacgctct tccgatctnn 60

nnnnnnnngg tgacccttgt ctctgtgttc ttgtcccccc 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
gcgaaaaaaa aaaaaaaata 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 ctttccctac 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 gaagaggtga cccacattct ccgaggtgtt 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

nnnnnnagat 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 ctttccctac acgacgctct tccgatctnn 60

nnnnnnnngg tgacccttgt ctctgtgttc gtcgaacacc tcggagaatg tgggtcacct 120

cttcagatcg gaagagcaca cgtctgaact ccagtcaccg tgatatctcg tatgccgtct 180

tctgcttg 188