

Comparison of SE and PE adapter sequences with identical portions highlighted. PE sequences are 1 base longer than SE sequences

SE1 5'-ACACTCTTTCCCTACACGACC-TCTTCCGATC*T-3'
 PE1 5'-ACACTCTTTCCCTACACGACGCTCTTCCGATC*T-3'

SE2 3'-GTTCTCTCTCTGCGTATGCTCGAGAAGGCTAG-p-5'
 PE2 3'-GAGCCGTAAGGACGACTTGGCGAGAAGGCTAG-p-5'

Comparison of SE and PE PCR primer sequences with identical portions highlighted. PE1 primer is longer than SE1 primer, SE2 and PE2 primers are identical.

SE1 5'-CAAGCAGAAGACGGCATACGAGCTC-----TTCCGATC*T-3'
 PE1 5'-CAAGCAGAAGACGGCATACGAGATCGGTCTCGGCATTCTGCTGAACCGCTCTTCCGATC*T

SE2 5'-AATGATACGGCGACCAACGAGATCTACACTCTTCCCTACACGACGCTCTTCCGATC*T-3'
 PE2 5'-AATGATACGGCGACCAACGAGATCTACACTCTTCCCTACACGACGCTCTTCCGATC*T

Immobilised oligos on paired end flowcell surface:

oligo 'C': 5'-PS-TTTTTTTTTTAAATGATACGGCGACCAACGAGAUCTACAC-3'
 (U = 2-deoxyuridine)
 oligo 'D': 5'-PS-TTTTTTTTTTCAAGCAGAAGACGGCATACGAGoxoAT-3',
 (Goxo = 8-oxoguanine) immobilised on the surface in a ratio C:D = 1:1.

Comparison of SE (A,B) and PE (C,D) immobilised oligo sequences:

oligo 'C': 5'-PS-TTTTTTTTTT-----AATGATACGGCGACCAACCGAGAUCTACAC-3'
 oligo 'A': 5'-PS-TTTTTTTTTT-(diol)3-AATGATACGGCGACCAACCGA-3
 oligo 'D': 5'-PS-TTTTTTTTTTCAAGCAGAAGACGGCATACGAGoxoAT-3',
 oligo 'B': 5'-PS-TTTTTTTTTTCAAGCAGAAGACGGCATACGA-3

Oligo B same as oligo D except for the GoxoAT end on D
 Oligo A has stretch of same sequences as oligo C

Comparison of sequencing primers. SE and PE1 primers are identical, therefore SE primer could be used on a PE adapter sequence:

Single read: 5'-ACACTCTTTCCCTACACGACGCTCTTCCGATCT-3'
 PE1: 5'-ACACTCTTTCCCTACACGACGCTCTTCCGATCT-3'

PE2: 5'-CGGTCTCGGCATTCTGCTGAACCGCTCTTCCGATCT -3