Barcode Oligos for Linker Amplified DNA

Matthew Sullivan

Abstract

Sequence for barcoded oligos for linker amplified libraries. Numbers 1 to 29 were developed at the Tucson Marine Phage Lab dervied from MID 1 to 14 recommended by Roche.

Citation: Matthew Sullivan Barcode Oligos for Linker Amplified DNA. protocols.io

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Guidelines

Rules for oligo creation:

- No duplicate nucleotides in a row, including ends next to Linker A & emPCR primer
- Barcodes must differ by at least 2 nucleotides
- Linker A has C at 5' end, so no C at 3' end of barcode
- emPCR primer has G at 3' end, so no G at 5' end of barcode
- Make with 5' phosphorylation.

5'phos-[5bp Bar Code]-CCACACAGATCACGAAGCATAC-3'

C 1 C G Α Α 2 Т C G Τ G 3 C Т C Т Α 4 C Τ Α Τ G C Т 5 G Α G 6 C Α Τ Α G 7 Τ C G Α Α 8 Α C Α G Α C Т G 9 Α G 10 Α C Τ C Τ G C Τ 11 Α Α Τ C Τ 12 Α Α Τ C Α 13 Α G Т G Т 14 Α Α G G Τ 15 Τ Α Τ C Τ 16 G G C C G 17 Т Α Τ C Τ 18 Α Α C G 19 Т Т Α Τ C G 20 Α Α

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21
          Τ
             С
                G
    Τ
       Α
22
    C
       G
          C
             G
                Α
    C
       Τ
          C
                Τ
23
             Α
             C
24
    C
       Α
          Τ
                Α
             C
25
    Α
       G
          Α
                 Α
26
    Α
       G
          Α
             G
                Τ
             C
27
    Α
       G
          Τ
                Α
       C
28
    Τ
          G
             Α
                Τ
          Τ
                Τ
29
    Т
       Α
             Α
MID
    ACGAGTGCGT
1
MID
    ACGCTCGACA
2
MID
    AGACGCACTC
3
MID
    AGCACTGTAG
4
MID
    ATCAGACACG
5
MID
    ATATCGCGAG
6
MID
    CGTGTCTCTA
7
MID
    CTCGCGTGTC
8
MID
    TAGTATCAGC
9
MID
    TCTCTATGCG
10
MID
    TGATACGTCT
11
MID
    TACTGAGCTA
12
MID
    CATAGTAGTG
13
MID
    CGAGAGATAC
14
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Protocol