## Read counting for the 2016-17 cohort

## EJC

25/06/2020, based on code from May 2019

The Babraham compute cluster does not contain a global tex installation, so a local tex is added to \$PATH to allow knitting to pdf.

```
## This code will need modification to reflect local file structure.
fls <- list.files(</pre>
  # on BI cluster all sequencing data is stored:
   path = "/bi/sequencing/",
     # This gets all hisat2 aligned bams
      pattern = "hisat2.bam",
       # Look in all subdirectories
    recursive = T,
       # Get full path:
      full.names = T)
# We only want ALFNA samples
# [ignore other BI sequencing projects shared with me]
fls <- fls [ grepl(fls, pattern = "ALFNA")]</pre>
# Select the HA+ B cell data:
fls <- fls [ grepl(fls, pattern = "HA")]</pre>
# Remove the pilot sample, 160Y_d42 from ALFNA14.
fls <- fls [ ! grepl(fls, pattern = "160Y")]</pre>
bam <- basename(fls)
ifelse(
  any(grepl(list.dirs(), pattern = "/data")),
  "Data directory already exists",
  # Data directory should be made:
  system("mkdir data"))
```

## [1] "Data directory already exists"

```
save(bam, fls, file = "data/bam_fls_paths.RData")
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##	o lane6967_GTAGAGGA_TCTCTCCG_cDNA190820_A10
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##	o lane6967_TAAGGCGA_CGTCTAAT_cDNA190820_B1_5
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##	o lane6967_TAAGGCGA_TATCCTCT_cDNA190820_G1_5
##	o lane6967_TAAGGCGA_TCTCTCCG_cDNA190820_A1_5
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##	o lane6967_TAGGCATG_CTAAGCCT_cDNA190820_C6_5
##	o lane6967_TAGGCATG_CTCTCTAT_cDNA190820_H6_5
##	o lane6967_TAGGCATG_GTAAGGAG_cDNA190820_F6_5
##	o lane6967_TAGGCATG_TATCCTCT_cDNA190820_G6_5
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##	o lane6976_GTAGAGGA_CGTCTAAT_cDNA190821_B10
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##	o lane6976_GTAGAGGA_TCTCTCCG_cDNA190821_A10
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##	o lane7055_ATCTCAGG_CTCTCTAT_lib190910_H12_5
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##	o lane7055_ATCTCAGG_TCTCTCCG_lib190910_A12_5

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                                   lane7035_TAAGGCGA_CTCTCTAT_cDNA190919_H1_5 ... ||
                                   lane7035 TAAGGCGA GTAAGGAG cDNA190919 F1 5 ... ||
##
                                   lane7035_TAAGGCGA_TATCCTCT_cDNA190919_G1_5 ... ||
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   - 1 1
                                   lane7035_TAAGGCGA_TCTCTCCG_cDNA190919_A1_5 ... ||
##
  - 1 1
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                                   lane7035_TAGGCATG_ACTGCATA_cDNA190919_E6_5 ... ||
## ||
                                   lane7035_TAGGCATG_CGTCTAAT_cDNA190919_B6_5 ... ||
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  - 1 1
                                   lane7035_TAGGCATG_CTAAGCCT_cDNA190919_C6_5 ... ||
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                                   lane7035_TAGGCATG_CTCTCTAT_cDNA190919_H6_5 ... ||
  -11
                                   lane7035_TAGGCATG_GTAAGGAG_cDNA190919_F6_5 ... ||
                                   lane7035_TAGGCATG_TATCCTCT_cDNA190919_G6_5 ... ||
##
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   | | |
                                   lane7035_TAGGCATG_TCTCTCCG_cDNA190919_A6_5 ... ||
                                   lane7035_TCCTGAGC_AAGGAGTA_cDNA190919_D4_5 ... ||
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  | | |
##
                                   lane7035_TCCTGAGC_ACTGCATA_cDNA190919_E4_5 ... ||
  - 1 1
##
                                   lane7035_TCCTGAGC_CGTCTAAT_cDNA190919_B4_5 ... |
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                                   lane7035_TCCTGAGC_CTAAGCCT_cDNA190919_C4_5 ... ||
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   | | |
                                   lane7035_TCCTGAGC_CTCTCTAT_cDNA190919_H4_5 ... ||
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##
   - 1 1
                                   lane7035_TCCTGAGC_TATCCTCT_cDNA190919_G4_5 ... ||
##
##
   - 1 1
                                 o lane7035_TCCTGAGC_TCTCTCCG_cDNA190919_A4_5 ... ||
##
  - 1 1
                                   lane7043 AAGAGGCA AAGGAGTA cDNA190920 D9 6 ... ||
## ||
                                   lane7043_AAGAGGCA_ACTGCATA_cDNA190920_E9_6 ... ||
  \Box
                                   lane7043_AAGAGGCA_CGTCTAAT_cDNA190920_B9_6 ... ||
##
##
  \Box
                                 o lane7043_AAGAGGCA_CTAAGCCT_cDNA190920_C9_6 ... ||
##
  | | |
                                   lane7043 AAGAGGCA CTCTCTAT cDNA190920 H9 6 ... ||
                                   lane7043_AAGAGGCA_GTAAGGAG_cDNA190920_F9_6 ... ||
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   | | |
##
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##
                                   lane7043_AAGAGGCA_TCTCTCCG_cDNA190920_A9_6 ... ||
  | | |
## ||
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                                   lane7043_AGGCAGAA_ACTGCATA_cDNA190920_E3_5 ... ||
## ||
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                                   lane7043_AGGCAGAA_CGTCTAAT_cDNA190920_B3_5 ... ||
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                                   lane7043_AGGCAGAA_CTAAGCCT_cDNA190920_C3_5 ... |
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  -11
                                   lane7043_AGGCAGAA_CTCTCTAT_cDNA190920_H3_5 ... ||
##
                                   lane7043_AGGCAGAA_GTAAGGAG_cDNA190920_F3_5 ... ||
##
   | | |
                                 o lane7043_AGGCAGAA_TATCCTCT_cDNA190920_G3_5 ... ||
## ||
                                 o lane7043_AGGCAGAA_TCTCTCCG_cDNA190920_A3_5 ... ||
## ||
                                 o lane7043_ATCTCAGG_AAGGAGTA_cDNA190920_D12_ ... ||
## ||
                                 o lane7043 ATCTCAGG ACTGCATA cDNA190920 E12 ... ||
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## ||
                                 o lane7043_ATCTCAGG_CGTCTAAT_cDNA190920_B12_ ... ||
## ||
                                 o lane7043_ATCTCAGG_CTAAGCCT_cDNA190920_C12_ ... ||
                                   lane7043 ATCTCAGG CTCTCTAT cDNA190920 H12 ... ||
  - 1 1
                                   lane7043_ATCTCAGG_GTAAGGAG_cDNA190920_F12_ ... ||
##
   | | |
##
   | | |
                                 o lane7043_ATCTCAGG_TATCCTCT_cDNA190920_G12_ ... ||
##
  - 1 1
                                 o lane7043 ATCTCAGG TCTCTCCG cDNA190920 A12 ... ||
## ||
                                   lane7043 CGAGGCTG AAGGAGTA cDNA190920 D8 5 ... ||
## ||
                                   lane7043_CGAGGCTG_ACTGCATA_cDNA190920_E8_5 ... ||
##
   II
                                   lane7043_CGAGGCTG_CGTCTAAT_cDNA190920_B8_5 ... ||
##
   lane7043_CGAGGCTG_CTAAGCCT_cDNA190920_C8_5 ... ||
  \Box
                                   lane7043_CGAGGCTG_CTCTCTAT_cDNA190920_H8_5 ... ||
                                   lane7043_CGAGGCTG_GTAAGGAG_cDNA190920_F8_5 ... ||
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##
                                 o lane7043_CGAGGCTG_TATCCTCT_cDNA190920_G8_5 ... ||
   - 1 1
## ||
                                   lane7043_CGAGGCTG_TCTCTCCG_cDNA190920_A8_6 ... ||
## ||
                                   lane7043_CGTACTAG_AAGGAGTA_cDNA190920_D2_5 ... ||
## ||
                                   lane7043_CGTACTAG_ACTGCATA_cDNA190920_E2_5 ... ||
##
  -11
                                   lane7043_CGTACTAG_CGTCTAAT_cDNA190920_B2_5 ... ||
                                   lane7043 CGTACTAG CTAAGCCT cDNA190920 C2 5 ... ||
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                                   lane7043_CGTACTAG_CTCTCTAT_cDNA190920_H2_5 ... ||
##
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##
   - 1 1
                                 o lane7043_CGTACTAG_GTAAGGAG_cDNA190920_F2_5 ... ||
##
  - 1 1
                                 o lane7043_CGTACTAG_TATCCTCT_cDNA190920_G2_5 ... ||
                                   lane7043_CGTACTAG_TCTCTCCG_cDNA190920_A2_5 ... ||
## ||
                                   lane7043_CTCTCTAC_AAGGAGTA_cDNA190920_D7_5 ... ||
## ||
                                 o lane7043_CTCTCTAC_ACTGCATA_cDNA190920_E7_5 ... ||
##
  - 1 1
##
  - 1 1
                                 o lane7043 CTCTCTAC CGTCTAAT cDNA190920 B7 5 ... ||
  -11
                                   lane7043_CTCTCTAC_CTAAGCCT_cDNA190920_C7_5 ... ||
                                   lane7043_CTCTCTAC_CTCTCTAT_cDNA190920_H7_5 ... ||
##
   ##
   | | |
                                 o lane7043_CTCTCTAC_GTAAGGAG_cDNA190920_F7_5 ... ||
                                 o lane7043_CTCTCTAC_TATCCTCT_cDNA190920_G7_5 ... ||
## ||
## ||
                                   lane7043_CTCTCTAC_TCTCTCCG_cDNA190920_A7_6 ... ||
## ||
                                   lane7043_GCTCATGA_AAGGAGTA_cDNA190920_D11_ ... ||
##
  -11
                                   lane7043_GCTCATGA_ACTGCATA_cDNA190920_E11_ ... ||
##
  -11
                                   lane7043_GCTCATGA_CGTCTAAT_cDNA190920_B11_ ... ||
                                   lane7043_GCTCATGA_CTAAGCCT_cDNA190920_C11_ ... ||
##
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                                   lane7043_GCTCATGA_CTCTCTAT_cDNA190920_H11_ ... ||
##
##
  - 1 1
                                 o lane7043_GCTCATGA_GTAAGGAG_cDNA190920_F11_ ... ||
## ||
                                 o lane7043 GCTCATGA TATCCTCT cDNA190920 G11 ... ||
## ||
                                   lane7043_GCTCATGA_TCTCTCCG_cDNA190920_A11_ ... ||
  \Box
                                 o lane7043_GGACTCCT_AAGGAGTA_cDNA190920_D5_5 ... ||
##
                                 o lane7043_GGACTCCT_ACTGCATA_cDNA190920_E5_5 ... ||
##
  - 1 1
                                   lane7043 GGACTCCT CGTCTAAT cDNA190920 B5 5 ... ||
  \Box
                                   lane7043_GGACTCCT_CTAAGCCT_cDNA190920_C5_5 ... ||
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   | | |
##
  - 1 1
                                 o lane7043_GGACTCCT_CTCTCTAT_cDNA190920_H5_5 ... ||
## ||
                                 o lane7043_GGACTCCT_GTAAGGAG_cDNA190920_F5_5 ... ||
## ||
                                   lane7043_GGACTCCT_TATCCTCT_cDNA190920_G5_5 ... ||
                                   lane7043_GGACTCCT_TCTCTCCG_cDNA190920_A5_5 ... ||
## ||
## ||
                                   lane7043_GTAGAGGA_AAGGAGTA_cDNA190920_D10_ ... ||
##
  \Box
                                   lane7043_GTAGAGGA_ACTGCATA_cDNA190920_E10_ ... ||
##
  \Box
                                   lane7043_GTAGAGGA_CGTCTAAT_cDNA190920_B10_ ... ||
##
                                   lane7043_GTAGAGGA_CTAAGCCT_cDNA190920_C10_ ... ||
                                 o lane7043_GTAGAGGA_CTCTCTAT_cDNA190920_H10_ ... ||
##
  -11
## ||
                                 o lane7043_GTAGAGGA_GTAAGGAG_cDNA190920_F10_ ... ||
## ||
                                 o lane7043_GTAGAGGA_TATCCTCT_cDNA190920_G10_ ... ||
## ||
                                 o lane7043 GTAGAGGA TCTCTCCG cDNA190920 A10 ... ||
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## ||
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##
  - 1 1
                                  o lane7043_TAAGGCGA_ACTGCATA_cDNA190920_E1_5 ... ||
  - 1 1
                                   lane7043 TAAGGCGA CGTCTAAT cDNA190920 B1 5 ... ||
##
                                   lane7043_TAAGGCGA_CTAAGCCT_cDNA190920_C1_5 ... ||
   | | |
##
   \Box
                                   lane7043_TAAGGCGA_CTCTCTAT_cDNA190920_H1_5 ... ||
##
  - 1 1
                                  o lane7043 TAAGGCGA GTAAGGAG cDNA190920 F1 5 ... ||
                                   lane7043 TAAGGCGA TATCCTCT cDNA190920 G1 5 ... ||
##
  - 1 1
                                   lane7043_TAAGGCGA_TCTCTCCG_cDNA190920_A1_5 ... ||
##
  - 1 1
##
   II
                                   lane7043_TAGGCATG_AAGGAGTA_cDNA190920_D6_5 ... ||
##
   lane7043_TAGGCATG_ACTGCATA_cDNA190920_E6_5 ... ||
   | | |
                                    lane7043_TAGGCATG_CGTCTAAT_cDNA190920_B6_5 ... ||
                                    lane7043_TAGGCATG_CTAAGCCT_cDNA190920_C6_5 ... ||
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##
                                   lane7043_TAGGCATG_CTCTCTAT_cDNA190920_H6_5 ... ||
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##
  - 1 1
                                   lane7043_TAGGCATG_GTAAGGAG_cDNA190920_F6_5 ... ||
                                    lane7043_TAGGCATG_TATCCTCT_cDNA190920_G6_5 ... ||
## ||
##
                                    lane7043_TAGGCATG_TCTCTCCG_cDNA190920_A6_5 ... ||
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   | | |
                                   lane7043_TCCTGAGC_AAGGAGTA_cDNA190920_D4_5 ... ||
                                    lane7043 TCCTGAGC ACTGCATA cDNA190920 E4 5 ... ||
##
                                   lane7043_TCCTGAGC_CGTCTAAT_cDNA190920_B4_5 ... ||
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##
   - 1 1
                                   lane7043_TCCTGAGC_CTAAGCCT_cDNA190920_C4_5 ... ||
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  - 1 1
                                   lane7043_TCCTGAGC_CTCTCTAT_cDNA190920_H4_5 ... ||
                                   lane7043_TCCTGAGC_GTAAGGAG_cDNA190920_F4_5 ... ||
## ||
                                   lane7043_TCCTGAGC_TATCCTCT_cDNA190920_G4_5 ... ||
## ||
##
  - 1 1
                                 o lane7043_TCCTGAGC_TCTCTCCG_cDNA190920_A4_5 ... ||
##
  Ш
                                  o lane7048_AAGAGGCA_AAGGAGTA_cDNA190921_D9_6 ... ||
  -11
                                   lane7048_AAGAGGCA_ACTGCATA_cDNA190921_E9_6 ... ||
                                    lane7048_AAGAGGCA_CGTCTAAT_cDNA190921_B9_6 ... ||
##
   ##
   | | |
                                   lane7048_AAGAGGCA_CTAAGCCT_cDNA190921_C9_6 ... ||
                                   lane7048_AAGAGGCA_CTCTCTAT_cDNA190921_H9_6 ... ||
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  | | |
##
                                   lane7048_AAGAGGCA_GTAAGGAG_cDNA190921_F9_6 ... ||
  - 1 1
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                                    lane7048_AAGAGGCA_TATCCTCT_cDNA190921_G9_6 ... |
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                                   lane7048_AAGAGGCA_TCTCTCCG_cDNA190921_A9_6 ... ||
##
   | | |
                                    lane7048_AGGCAGAA_AAGGAGTA_cDNA190921_D3_6 ... ||
                                    lane7048_AGGCAGAA_ACTGCATA_cDNA190921_E3_6 ... ||
##
   - 1 1
                                   lane7048_AGGCAGAA_CGTCTAAT_cDNA190921_B3_6 ... ||
##
##
   - 1 1
                                 o lane7048_AGGCAGAA_CTAAGCCT_cDNA190921_C3_6 ... ||
##
  - 1 1
                                   lane7048 AGGCAGAA CTCTCTAT cDNA190921 H3 6 ... ||
## ||
                                   lane7048_AGGCAGAA_GTAAGGAG_cDNA190921_F3_6 ... ||
  \Box
                                   lane7048_AGGCAGAA_TATCCTCT_cDNA190921_G3_6 ... ||
##
##
  \Box
                                  o lane7048_AGGCAGAA_TCTCTCCG_cDNA190921_A3_6 ... ||
##
  | | |
                                   lane7048 ATCTCAGG AAGGAGTA cDNA190921 D12 ... ||
                                    lane7048_ATCTCAGG_ACTGCATA_cDNA190921_E12_ ... ||
##
   | | |
##
   - 1 1
                                   lane7048_ATCTCAGG_CGTCTAAT_cDNA190921_B12_ ... ||
##
                                   lane7048_ATCTCAGG_CTAAGCCT_cDNA190921_C12_ ... ||
  | | |
## ||
                                   lane7048_ATCTCAGG_CTCTCTAT_cDNA190921_H12_ ... ||
                                    lane7048_ATCTCAGG_GTAAGGAG_cDNA190921_F12_ ... ||
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                                   lane7048_ATCTCAGG_TATCCTCT_cDNA190921_G12_ ... ||
##
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                                    lane7048_ATCTCAGG_TCTCTCCG_cDNA190921_A12_ ... ||
##
  -11
                                    lane7048_CGAGGCTG_AAGGAGTA_cDNA190921_D8_6 ... ||
##
                                    lane7048_CGAGGCTG_ACTGCATA_cDNA190921_E8_6 ... ||
##
   | | |
                                 o lane7048_CGAGGCTG_CGTCTAAT_cDNA190921_B8_6 ... ||
## ||
                                  o lane7048_CGAGGCTG_CTAAGCCT_cDNA190921_C8_6 ... ||
## ||
                                 o lane7048_CGAGGCTG_CTCTCTAT_cDNA190921_H8_6 ... ||
## ||
                                  o lane7048 CGAGGCTG GTAAGGAG cDNA190921 F8 6 ... ||
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## ||
                                 o lane7048_CGAGGCTG_TATCCTCT_cDNA190921_G8_6 ... ||
## ||
                                 o lane7048_CGAGGCTG_TCTCTCCG_cDNA190921_A8_6 ... ||
                                   lane7048 CGTACTAG AAGGAGTA cDNA190921 D2 5 ... ||
  -11
##
                                   lane7048_CGTACTAG_ACTGCATA_cDNA190921_E2_5 ... ||
   | | |
##
   \Box
                                 o lane7048_CGTACTAG_CGTCTAAT_cDNA190921_B2_5 ... ||
                                 o lane7048 CGTACTAG CTAAGCCT cDNA190921 C2 5 ... ||
##
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##
  - 1 1
                                   lane7048 CGTACTAG CTCTCTAT cDNA190921 H2 5 ... ||
## ||
                                   lane7048_CGTACTAG_GTAAGGAG_cDNA190921_F2_5 ... ||
##
  -11
                                   lane7048_CGTACTAG_TATCCTCT_cDNA190921_G2_5 ... ||
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   lane7048_CGTACTAG_TCTCTCCG_cDNA190921_A2_5 ... ||
                                   lane7048_CTCTCTAC_AAGGAGTA_cDNA190921_D7_6 ... ||
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                                   lane7048_CTCTCTAC_ACTGCATA_cDNA190921_E7_6 ... ||
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##
                                   lane7048_CTCTCTAC_CGTCTAAT_cDNA190921_B7_6 ... ||
   - 1 1
## ||
                                   lane7048_CTCTCTAC_CTAAGCCT_cDNA190921_C7_6 ... ||
                                   lane7048_CTCTCTAC_CTCTCTAT_cDNA190921_H7_6 ... ||
## ||
## ||
                                   lane7048_CTCTCTAC_GTAAGGAG_cDNA190921_F7_6 ... ||
##
  -11
                                   lane7048_CTCTCTAC_TATCCTCT_cDNA190921_G7_6 ... ||
                                   lane7048_CTCTCTAC_TCTCTCCG_cDNA190921_A7_6 ... ||
##
                                   lane7048_GCTCATGA_AAGGAGTA_cDNA190921_D11_ ... ||
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##
   - 1 1
                                   lane7048_GCTCATGA_ACTGCATA_cDNA190921_E11_ ... ||
##
  - 1 1
                                 o lane7048_GCTCATGA_CGTCTAAT_cDNA190921_B11_ ... ||
                                   lane7048_GCTCATGA_CTAAGCCT_cDNA190921_C11_ ... ||
## ||
                                   lane7048_GCTCATGA_CTCTCTAT_cDNA190921_H11_ ... ||
## ||
##
  - 1 1
                                 o lane7048 GCTCATGA GTAAGGAG cDNA190921 F11 ... ||
##
  - 1 1
                                 o lane7048_GCTCATGA_TATCCTCT_cDNA190921_G11_ ... ||
  -11
                                   lane7048_GCTCATGA_TCTCTCCG_cDNA190921_A11_ ... ||
                                   lane7048_GGACTCCT_AAGGAGTA_cDNA190921_D5_6 ... ||
##
   ##
   | | |
                                 o lane7048_GGACTCCT_ACTGCATA_cDNA190921_E5_6 ... ||
                                   lane7048_GGACTCCT_CGTCTAAT_cDNA190921_B5_6 ... ||
## ||
## ||
                                   lane7048_GGACTCCT_CTAAGCCT_cDNA190921_C5_6 ... ||
## ||
                                   lane7048_GGACTCCT_CTCTCTAT_cDNA190921_H5_6 ... ||
##
  - 1 1
                                   lane7048_GGACTCCT_GTAAGGAG_cDNA190921_F5_6 ... ||
##
  -11
                                   lane7048_GGACTCCT_TATCCTCT_cDNA190921_G5_6 ... ||
                                   lane7048_GGACTCCT_TCTCTCCG_cDNA190921_A5_6 ... ||
##
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                                   lane7048_GTAGAGGA_AAGGAGTA_cDNA190921_D10_ ... ||
##
##
  - 1 1
                                 o lane7048_GTAGAGGA_ACTGCATA_cDNA190921_E10_ ... ||
## ||
                                  lane7048 GTAGAGGA CGTCTAAT cDNA190921 B10 ... ||
## ||
                                   lane7048_GTAGAGGA_CTAAGCCT_cDNA190921_C10_ ... ||
  \Box
                                 o lane7048_GTAGAGGA_CTCTCTAT_cDNA190921_H10_ ... ||
##
##
  - 1 1
                                 o lane7048_GTAGAGGA_GTAAGGAG_cDNA190921_F10_ ... ||
##
  \Box
                                   lane7048 GTAGAGGA TATCCTCT cDNA190921 G10 ... ||
                                   lane7048_GTAGAGGA_TCTCTCCG_cDNA190921_A10_ ... ||
##
   | | |
##
  -11
                                 o lane7048_TAAGGCGA_AAGGAGTA_cDNA190921_D1_5 ... ||
                                   lane7048_TAAGGCGA_ACTGCATA_cDNA190921_E1_5 ... ||
## ||
## ||
                                   lane7048_TAAGGCGA_CGTCTAAT_cDNA190921_B1_5 ... ||
                                   lane7048_TAAGGCGA_CTAAGCCT_cDNA190921_C1_5 ... ||
## ||
## ||
                                   lane7048_TAAGGCGA_CTCTCTAT_cDNA190921_H1_5 ... ||
##
  \Box
                                   lane7048_TAAGGCGA_GTAAGGAG_cDNA190921_F1_5 ... |
##
  -11
                                   lane7048_TAAGGCGA_TATCCTCT_cDNA190921_G1_5 ... ||
##
                                   lane7048_TAAGGCGA_TCTCTCCG_cDNA190921_A1_5 ... ||
##
  -11
                                 o lane7048_TAGGCATG_AAGGAGTA_cDNA190921_D6_6 ... ||
## ||
                                 o lane7048_TAGGCATG_ACTGCATA_cDNA190921_E6_6 ... ||
## ||
                                 o lane7048_TAGGCATG_CGTCTAAT_cDNA190921_B6_6 ... ||
## ||
                                 o lane7048 TAGGCATG CTAAGCCT cDNA190921 C6 6 ... ||
```

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## ||
                              o lane7048_TAGGCATG_CTCTCTAT_cDNA190921_H6_6 ... ||
## ||
                              o lane7048_TAGGCATG_GTAAGGAG_cDNA190921_F6_6 ... ||
## ||
                              o lane7048 TAGGCATG TATCCTCT cDNA190921 G6 6 ... ||
                              o lane7048_TAGGCATG_TCTCTCCG_cDNA190921_A6_6 ... ||
## ||
                              o lane7048_TCCTGAGC_AAGGAGTA_cDNA190921_D4_6 ... ||
## ||
                              o lane7048 TCCTGAGC ACTGCATA cDNA190921 E4 6 ... ||
                              o lane7048 TCCTGAGC CGTCTAAT cDNA190921 B4 6 ... ||
                              o lane7048_TCCTGAGC_CTAAGCCT_cDNA190921_C4_6 ... ||
## ||
## ||
                              o lane7048_TCCTGAGC_CTCTCTAT_cDNA190921_H4_6 ... ||
                              o lane7048_TCCTGAGC_GTAAGGAG_cDNA190921_F4_6 ... ||
## ||
                              o lane7048_TCCTGAGC_TATCCTCT_cDNA190921_G4_6 ... ||
                              o lane7048_TCCTGAGC_TCTCTCCG_cDNA190921_A4_6 ... ||
## ||
                                                                              II
                  Annotation: Homo_sapiens.GRCh38.87.gtf (GTF)
                                                                              | | |
## ||
## ||
          Dir for temp files : .
                                                                              \prod
## ||
                     Threads: 7
                                                                              П
## ||
                       Level : meta-feature level
                                                                              П
## ||
                  Paired-end: ves
                                                                              П
          Multimapping reads : counted
                                                                              11
## || Multi-overlapping reads : not counted
## ||
       Min overlapping bases : 1
                                                                              II
## ||
                                                                              | | |
## ||
              Chimeric reads : not counted
                                                                              | |
## ||
            Both ends mapped : required
                                                                              II
                                                                              \Pi
## \\-----//
## || Load annotation file Homo_sapiens.GRCh38.87.gtf ...
                                                                              \Pi
        Features : 1182163
                                                                              \Pi
## ||
        Meta-features : 58051
                                                                              II
## ||
        Chromosomes/contigs: 47
                                                                              \Pi
## ||
                                                                              \Pi
## || Process BAM file lane6963_AAGAGGCA_AAGGAGTA_cDNA190807_D9_594V_d42_L00 ... ||
        Paired-end reads are included.
## ||
                                                                              11
## ||
        Total alignments: 1290399
                                                                              \Pi
## ||
        Successfully assigned alignments: 1072986 (83.2%)
                                                                              \Pi
## ||
        Running time: 0.08 minutes
                                                                              II
## ||
                                                                              \Pi
## || Process BAM file lane6963_AAGAGGCA_ACTGCATA_cDNA190807_E9_594V_d42_L00 ... ||
        Paired-end reads are included.
                                                                              | | |
        Total alignments: 1072321
## ||
                                                                              II
        Successfully assigned alignments : 873602 (81.5%)
## ||
                                                                              \prod
## ||
        Running time : 0.07 minutes
                                                                              \Pi
## ||
## || Process BAM file lane6963_AAGAGGCA_CGTCTAAT_cDNA190807_B9_594V_d42_L00 ... ||
        Paired-end reads are included.
                                                                              II
## ||
        Total alignments : 3174226
                                                                              \Pi
        Successfully assigned alignments: 2401568 (75.7%)
## ||
                                                                              \Pi
## ||
        Running time : 0.18 minutes
                                                                              \Pi
## ||
                                                                              \Pi
## || Process BAM file lane6963_AAGAGGCA_CTAAGCCT_cDNA190807_C9_594V_d42_L00 ... ||
## || Paired-end reads are included.
                                                                              II
```

```
\prod
         Total alignments: 1508888
         Successfully assigned alignments : 1242901 (82.4%)
## ||
                                                                                    II
         Running time: 0.09 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane6963_AAGAGGCA_CTCTCTAT_cDNA190807_H9_594V_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1916590
                                                                                    II
         Successfully assigned alignments: 1548868 (80.8%)
## ||
                                                                                    | |
## ||
         Running time: 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_AAGAGGCA_GTAAGGAG_cDNA190807_F9_594V_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1211652
                                                                                    II
## ||
         Successfully assigned alignments: 981516 (81.0%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_AAGAGGCA_TATCCTCT_cDNA190807_G9_594V_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1359831
                                                                                    II
## ||
         Successfully assigned alignments: 1121107 (82.4%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_AAGAGGCA_TCTCTCCG_cDNA190807_A9_594V_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2081010
                                                                                    | |
## ||
         Successfully assigned alignments: 1642810 (78.9%)
                                                                                    II
## ||
         Running time : 0.12 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6963_AGGCAGAA_AAGGAGTA_cDNA190807_D3_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 779306
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 588250 (75.5%)
                                                                                    II
         Running time : 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 AGGCAGAA ACTGCATA cDNA190807 E3 545R d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 580346
                                                                                    II
## ||
         Successfully assigned alignments: 398093 (68.6%)
                                                                                    II
         Running time: 0.04 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_AGGCAGAA_CGTCTAAT_cDNA190807_B3_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 2241807
                                                                                    II
## ||
         Successfully assigned alignments : 1956793 (87.3%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.13 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6963_AGGCAGAA_CTAAGCCT_cDNA190807_C3_545R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 657986
                                                                                    II
         Successfully assigned alignments: 416598 (63.3%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6963_AGGCAGAA_CTCTCTAT_cDNA190807_H3_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 805
         Successfully assigned alignments : 12 (1.5%)
## ||
                                                                                    II
         Running time : 0.00 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_AGGCAGAA_GTAAGGAG_cDNA190807_F3_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 629945
                                                                                    II
## ||
         Successfully assigned alignments: 503675 (80.0%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_AGGCAGAA_TATCCTCT_cDNA190807_G3_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1245533
                                                                                    II
## ||
         Successfully assigned alignments: 1051329 (84.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_AGGCAGAA_TCTCTCCG_cDNA190807_A3_545R_d42_L00 ...
         Paired-end reads are included.
         Total alignments : 1267561
                                                                                    II
## ||
         Successfully assigned alignments: 927462 (73.2%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_ATCTCAGG_AAGGAGTA_cDNA190807_D12_594V_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2720324
                                                                                    | |
## ||
         Successfully assigned alignments: 2160138 (79.4%)
                                                                                    II
## ||
         Running time : 0.15 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6963_ATCTCAGG_ACTGCATA_cDNA190807_E12_594V_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1390260
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1087653 (78.2%)
                                                                                    II
         Running time: 0.08 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 ATCTCAGG CGTCTAAT cDNA190807 B12 594V d42 L0 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 4899048
                                                                                    \Pi
## ||
         Successfully assigned alignments: 3944485 (80.5%)
                                                                                    II
         Running time: 0.27 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_ATCTCAGG_CTAAGCCT_cDNA190807_C12_594V_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 4022123
                                                                                    II
## ||
         Successfully assigned alignments : 3260317 (81.1%)
                                                                                    \prod
## ||
         Running time: 0.23 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_ATCTCAGG_CTCTCTAT_cDNA190807_H12_594V_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 2539537
                                                                                    II
         Successfully assigned alignments: 2030844 (80.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.15 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6963_ATCTCAGG_GTAAGGAG_cDNA190807_F12_594V_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1623083
## ||
         Successfully assigned alignments: 1276772 (78.7%)
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_ATCTCAGG_TATCCTCT_cDNA190807_G12_594V_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 3089568
                                                                                    II
         Successfully assigned alignments: 2415405 (78.2%)
## ||
                                                                                    | |
## ||
         Running time: 0.18 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_ATCTCAGG_TCTCTCCG_cDNA190807_A12_594V_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
## ||
         Total alignments: 1182
                                                                                    II
         Successfully assigned alignments : 54 (4.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CGAGGCTG_AAGGAGTA_cDNA190807_D8_594V_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 1347881
                                                                                    II
## ||
         Successfully assigned alignments: 1112585 (82.5%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_CGAGGCTG_ACTGCATA_cDNA190807_E8_594V_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 737413
                                                                                    | |
## ||
         Successfully assigned alignments: 640340 (86.8%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6963_CGAGGCTG_CGTCTAAT_cDNA190807_B8_594V_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2046186
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1549554 (75.7%)
                                                                                    II
         Running time: 0.12 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 CGAGGCTG CTAAGCCT cDNA190807 C8 594V d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1296672
                                                                                    II
## ||
         Successfully assigned alignments: 1039425 (80.2%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_CGAGGCTG_CTCTCTAT_cDNA190807_H8_594V_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1355492
                                                                                    II
## ||
         Successfully assigned alignments : 1091440 (80.5%)
                                                                                    \prod
## ||
         Running time: 0.08 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CGAGGCTG_GTAAGGAG_cDNA190807_F8_594V_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1016885
                                                                                    II
         Successfully assigned alignments: 819967 (80.6%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6963_CGAGGCTG_TATCCTCT_cDNA190807_G8_594V_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1373787
         Successfully assigned alignments : 1094365 (79.7%)
## ||
                                                                                    II
         Running time: 0.08 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane6963_CGAGGCTG_TCTCTCCG_cDNA190807_A8_594V_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2655742
                                                                                    II
## ||
         Successfully assigned alignments: 2143074 (80.7%)
                                                                                    | |
## ||
         Running time: 0.15 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CGTACTAG_AAGGAGTA_cDNA190807_D2_545R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1530326
                                                                                    II
## ||
         Successfully assigned alignments : 1307940 (85.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CGTACTAG_ACTGCATA_cDNA190807_E2_545R_d42_L00 \dots
         Paired-end reads are included.
         Total alignments: 1338380
                                                                                    II
## ||
         Successfully assigned alignments: 1097996 (82.0%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_CGTACTAG_CGTCTAAT_cDNA190807_B2_545R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2449475
                                                                                    | |
## ||
         Successfully assigned alignments: 1984192 (81.0%)
                                                                                    II
## ||
         Running time: 0.14 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6963_CGTACTAG_CTAAGCCT_cDNA190807_C2_545R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1688237
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1478941 (87.6%)
                                                                                    II
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 CGTACTAG CTCTCTAT cDNA190807 H2 545R d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1788511
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1457883 (81.5%)
                                                                                    II
         Running time : 0.10 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_CGTACTAG_GTAAGGAG_cDNA190807_F2_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 990296
                                                                                    II
## ||
         Successfully assigned alignments: 833050 (84.1%)
                                                                                    \prod
## ||
         Running time: 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CGTACTAG_TATCCTCT_cDNA190807_G2_545R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1574372
                                                                                    II
         Successfully assigned alignments: 1337210 (84.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.09 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6963_CGTACTAG_TCTCTCCG_cDNA190807_A2_545R_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1933386
         Successfully assigned alignments : 1598291 (82.7%)
## ||
                                                                                    II
## ||
         Running time: 0.11 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963 CTCTCTAC AAGGAGTA cDNA190807 D7 594V d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 509212
                                                                                    II
## ||
         Successfully assigned alignments: 398815 (78.3%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CTCTCTAC_ACTGCATA_cDNA190807_E7_594V_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 902828
                                                                                    II
## ||
         Successfully assigned alignments: 668944 (74.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CTCTCTAC_CGTCTAAT_cDNA190807_B7_594V_d0_L001 \dots
         Paired-end reads are included.
         Total alignments: 2216990
                                                                                    II
## ||
         Successfully assigned alignments: 1513444 (68.3%)
## ||
                                                                                    II
## ||
         Running time: 0.12 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_CTCTCTAC_CTAAGCCT_cDNA190807_C7_594V_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1352576
                                                                                    | |
## ||
         Successfully assigned alignments: 1123279 (83.0%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6963_CTCTCTAC_CTCTCTAT_cDNA190807_H7_594V_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 853585
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 650461 (76.2%)
                                                                                    II
         Running time: 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 CTCTCTAC GTAAGGAG cDNA190807 F7 594V d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1268985
                                                                                    II
## ||
         Successfully assigned alignments: 1020824 (80.4%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963 CTCTCTAC TATCCTCT cDNA190807 G7 594V d0 L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1461928
                                                                                    II
## ||
         Successfully assigned alignments: 1136685 (77.8%)
                                                                                    \prod
## ||
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_CTCTCTAC_TCTCTCCG_cDNA190807_A7_594V_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1955084
                                                                                    II
         Successfully assigned alignments: 1577328 (80.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.11 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6963_GCTCATGA_AAGGAGTA_cDNA190807_D11_594V_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2039988
         Successfully assigned alignments : 1706168 (83.6%)
## ||
                                                                                    II
## ||
         Running time: 0.12 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_GCTCATGA_ACTGCATA_cDNA190807_E11_594V_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1350774
                                                                                    II
## ||
         Successfully assigned alignments: 1054722 (78.1%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GCTCATGA_CGTCTAAT_cDNA190807_B11_594V_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 3624744
                                                                                    II
## ||
         Successfully assigned alignments: 2993668 (82.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.20 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GCTCATGA_CTAAGCCT_cDNA190807_C11_594V_d42_L0 ...
         Paired-end reads are included.
         Total alignments : 2227705
                                                                                    II
## ||
         Successfully assigned alignments: 1744297 (78.3%)
## ||
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_GCTCATGA_CTCTCTAT_cDNA190807_H11_594V_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2279347
                                                                                    | |
## ||
         Successfully assigned alignments: 1842042 (80.8%)
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6963_GCTCATGA_GTAAGGAG_cDNA190807_F11_594V_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1498627
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1220316 (81.4%)
                                                                                    II
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 GCTCATGA TATCCTCT cDNA190807 G11 594V d42 L0 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2338626
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1885169 (80.6%)
                                                                                    II
## ||
         Running time: 0.14 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6963_GCTCATGA_TCTCTCCG_cDNA190807_A11_594V_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 653
                                                                                    II
## ||
         Successfully assigned alignments : 33 (5.1%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GGACTCCT_AAGGAGTA_cDNA190807_D5_545R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 326
                                                                                    II
         Successfully assigned alignments: 224 (68.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6963_GGACTCCT_ACTGCATA_cDNA190807_E5_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 55157
         Successfully assigned alignments : 42274 (76.6%)
## ||
                                                                                    II
         Running time : 0.01 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963 GGACTCCT CGTCTAAT cDNA190807 B5 545R d42 L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1266084
                                                                                    II
         Successfully assigned alignments: 1088593 (86.0%)
## ||
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GGACTCCT_CTAAGCCT_cDNA190807_C5_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 274757
                                                                                    II
## ||
         Successfully assigned alignments: 145538 (53.0%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GGACTCCT_CTCTCTAT_cDNA190807_H5_545R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1459
                                                                                    II
## ||
         Successfully assigned alignments: 10 (0.7%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_GGACTCCT_GTAAGGAG_cDNA190807_F5_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 340760
                                                                                    | |
## ||
         Successfully assigned alignments: 237483 (69.7%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6963_GGACTCCT_TATCCTCT_cDNA190807_G5_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 338449
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments : 220773 (65.2%)
                                                                                    II
         Running time : 0.03 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963_GGACTCCT_TCTCTCCG_cDNA190807_A5_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 455
                                                                                    \Pi
## ||
         Successfully assigned alignments: 295 (64.8%)
                                                                                    II
         Running time : 0.00 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_GTAGAGGA_AAGGAGTA_cDNA190807_D10_594V_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 1580121
                                                                                    II
## ||
         Successfully assigned alignments : 1315825 (83.3%)
                                                                                    \prod
## ||
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GTAGAGGA_ACTGCATA_cDNA190807_E10_594V_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 485597
                                                                                    II
         Successfully assigned alignments: 417855 (86.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6963_GTAGAGGA_CGTCTAAT_cDNA190807_B10_594V_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1923573
         Successfully assigned alignments : 1564550 (81.3%)
## ||
                                                                                    II
                                                                                    II
## ||
         Running time: 0.11 minutes
## ||
                                                                                    II
## || Process BAM file lane6963 GTAGAGGA CTAAGCCT cDNA190807 C10 594V d42 L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2103830
                                                                                    II
         Successfully assigned alignments: 1760644 (83.7%)
## ||
                                                                                    | |
## ||
         Running time: 0.12 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GTAGAGGA_CTCTCTAT_cDNA190807_H10_594V_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2069262
                                                                                    II
## ||
         Successfully assigned alignments: 1689386 (81.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.12 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_GTAGAGGA_GTAAGGAG_cDNA190807_F10_594V_d42_L0 \dots
         Paired-end reads are included.
         Total alignments: 1535563
                                                                                    II
## ||
         Successfully assigned alignments: 1267629 (82.6%)
## ||
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_GTAGAGGA_TATCCTCT_cDNA190807_G10_594V_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2123038
                                                                                    | |
## ||
         Successfully assigned alignments: 1707199 (80.4%)
                                                                                    II
## ||
         Running time : 0.12 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6963_GTAGAGGA_TCTCTCCG_cDNA190807_A10_594V_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2912508
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 2312111 (79.4%)
                                                                                    II
         Running time: 0.16 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 TAAGGCGA AAGGAGTA cDNA190807 D1 545R d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1373199
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1127886 (82.1%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6963_TAAGGCGA_ACTGCATA_cDNA190807_E1_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 474456
                                                                                    II
## ||
         Successfully assigned alignments: 396823 (83.6%)
                                                                                    \prod
## ||
         Running time: 0.03 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TAAGGCGA_CGTCTAAT_cDNA190807_B1_545R_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 2325288
                                                                                    \Pi
         Successfully assigned alignments: 1974675 (84.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.13 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6963_TAAGGCGA_CTAAGCCT_cDNA190807_C1_545R_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1396749
         Successfully assigned alignments : 1162498 (83.2%)
## ||
                                                                                    II
                                                                                    II
## ||
         Running time: 0.08 minutes
## ||
                                                                                    II
## || Process BAM file lane6963_TAAGGCGA_CTCTCTAT_cDNA190807_H1_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1407947
                                                                                    II
## ||
         Successfully assigned alignments: 1229941 (87.4%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TAAGGCGA_GTAAGGAG_cDNA190807_F1_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 734429
                                                                                    II
## ||
         Successfully assigned alignments: 632612 (86.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TAAGGCGA_TATCCTCT_cDNA190807_G1_545R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1150253
                                                                                    II
## ||
         Successfully assigned alignments: 980731 (85.3%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_TAAGGCGA_TCTCTCCG_cDNA190807_A1_545R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1991762
                                                                                    | |
## ||
         Successfully assigned alignments: 1578602 (79.3%)
                                                                                    II
## ||
         Running time : 0.11 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6963_TAGGCATG_AAGGAGTA_cDNA190807_D6_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 123619
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 86337 (69.8%)
                                                                                    II
         Running time : 0.01 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6963 TAGGCATG ACTGCATA cDNA190807 E6 545R d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 322218
                                                                                    \Pi
## ||
         Successfully assigned alignments: 241184 (74.9%)
                                                                                    II
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_TAGGCATG_CGTCTAAT_cDNA190807_B6_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 828455
                                                                                    II
## ||
         Successfully assigned alignments: 560914 (67.7%)
                                                                                    \prod
## ||
         Running time: 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TAGGCATG_CTAAGCCT_cDNA190807_C6_545R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 877756
                                                                                    II
         Successfully assigned alignments: 636409 (72.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6963_TAGGCATG_CTCTCTAT_cDNA190807_H6_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 859265
         Successfully assigned alignments : 731837 (85.2%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_TAGGCATG_GTAAGGAG_cDNA190807_F6_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 65914
                                                                                    II
## ||
         Successfully assigned alignments : 49024 (74.4%)
## ||
                                                                                    | |
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TAGGCATG_TATCCTCT_cDNA190807_G6_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1323242
         Successfully assigned alignments: 1061257 (80.2%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TAGGCATG_TCTCTCCG_cDNA190807_A6_545R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1705227
                                                                                    II
## ||
         Successfully assigned alignments: 1231046 (72.2%)
## ||
                                                                                    II
         Running time : 0.10 minutes
## ||
                                                                                    II
                                                                                    II
## || Process BAM file lane6963_TCCTGAGC_AAGGAGTA_cDNA190807_D4_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 120243
## ||
         Successfully assigned alignments: 87160 (72.5%)
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane6963_TCCTGAGC_ACTGCATA_cDNA190807_E4_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 90855
                                                                                    \Pi
## ||
         Successfully assigned alignments: 68968 (75.9%)
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    \Pi
## ||
                                                                                    11
## || Process BAM file lane6963_TCCTGAGC_CGTCTAAT_cDNA190807_B4_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1368528
                                                                                    II
## ||
         Successfully assigned alignments: 1138250 (83.2%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6963_TCCTGAGC_CTAAGCCT_cDNA190807_C4_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 559090
                                                                                    II
## ||
         Successfully assigned alignments : 424691 (76.0%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.04 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TCCTGAGC_CTCTCTAT_cDNA190807_H4_545R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 788
                                                                                    \Pi
         Successfully assigned alignments: 4 (0.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6963_TCCTGAGC_GTAAGGAG_cDNA190807_F4_545R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 31045
         Successfully assigned alignments : 23121 (74.5%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6963_TCCTGAGC_TATCCTCT_cDNA190807_G4_545R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1238486
                                                                                    II
## ||
         Successfully assigned alignments: 1093912 (88.3%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6963_TCCTGAGC_TCTCTCCG_cDNA190807_A4_545R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1138034
         Successfully assigned alignments: 874728 (76.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_AAGAGGCA_AAGGAGTA_cDNA190819_D9_562K_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 318422
                                                                                    II
## ||
         Successfully assigned alignments: 231962 (72.8%)
## ||
                                                                                    II
## ||
         Running time: 0.02 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_AAGAGGCA_ACTGCATA_cDNA190819_E9_562K_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 411
                                                                                    | |
## ||
         Successfully assigned alignments: 239 (58.2%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6966_AAGAGGCA_CGTCTAAT_cDNA190819_B9_562K_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2546768
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 2006550 (78.8%)
                                                                                    II
                                                                                    \prod
## ||
         Running time : 0.14 minutes
## ||
                                                                                    11
## || Process BAM file lane6966 AAGAGGCA CTAAGCCT cDNA190819 C9 562K d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 179
                                                                                    \Pi
## ||
         Successfully assigned alignments : 56 (31.3%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_AAGAGGCA_CTCTCTAT_cDNA190819_H9_562K_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 2684746
                                                                                    II
## ||
         Successfully assigned alignments : 2323009 (86.5%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.15 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6966_AAGAGGCA_GTAAGGAG_cDNA190819_F9_562K_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 418936
                                                                                    II
         Successfully assigned alignments: 300521 (71.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6966_AAGAGGCA_TATCCTCT_cDNA190819_G9_562K_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 329685
         Successfully assigned alignments : 233837 (70.9%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_AAGAGGCA_TCTCTCCCG_cDNA190819_A9_562K_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 9647
                                                                                    II
## ||
         Successfully assigned alignments: 6062 (62.8%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_AGGCAGAA_AAGGAGTA_cDNA190819_D3_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1463182
         Successfully assigned alignments: 1220195 (83.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_AGGCAGAA_ACTGCATA_cDNA190819_E3_543P_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1334583
                                                                                    II
## ||
         Successfully assigned alignments: 1067087 (80.0%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_AGGCAGAA_CGTCTAAT_cDNA190819_B3_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 2265052
## ||
         Successfully assigned alignments: 1906127 (84.2%)
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6966_AGGCAGAA_CTAAGCCT_cDNA190819_C3_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1771059
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1510941 (85.3%)
                                                                                    II
                                                                                    \prod
## ||
         Running time : 0.10 minutes
## ||
                                                                                    11
## || Process BAM file lane6966_AGGCAGAA_CTCTCTAT_cDNA190819_H3_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 648637
                                                                                    II
## ||
         Successfully assigned alignments: 537408 (82.9%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_AGGCAGAA_GTAAGGAG_cDNA190819_F3_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 641398
                                                                                    II
## ||
         Successfully assigned alignments : 559610 (87.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.04 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6966_AGGCAGAA_TATCCTCT_cDNA190819_G3_543P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1542888
                                                                                    II
         Successfully assigned alignments: 1320528 (85.6%)
                                                                                    \prod
## ||
## ||
         Running time : 0.09 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6966_AGGCAGAA_TCTCTCCCG_cDNA190819_A3_543P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1914224
         Successfully assigned alignments : 1624446 (84.9%)
## ||
                                                                                    II
## ||
         Running time: 0.11 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_ATCTCAGG_AAGGAGTA_cDNA190819_D12_562K_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 3563312
                                                                                    II
## ||
         Successfully assigned alignments: 2723355 (76.4%)
                                                                                    | |
## ||
         Running time: 0.19 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_ATCTCAGG_ACTGCATA_cDNA190819_E12_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 263561
         Successfully assigned alignments: 172936 (65.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_ATCTCAGG_CGTCTAAT_cDNA190819_B12_562K_d42_L0 \dots
         Paired-end reads are included.
         Total alignments: 6520884
                                                                                    II
## ||
         Successfully assigned alignments: 4275438 (65.6%)
## ||
                                                                                    II
## ||
         Running time: 0.35 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_ATCTCAGG_CTAAGCCT_cDNA190819_C12_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2641397
                                                                                    | |
## ||
         Successfully assigned alignments: 1869211 (70.8%)
                                                                                    II
## ||
         Running time : 0.15 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6966_ATCTCAGG_CTCTCTAT_cDNA190819_H12_562K_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 3533137
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments : 2911448 (82.4%)
                                                                                    II
         Running time: 0.20 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6966 ATCTCAGG GTAAGGAG cDNA190819 F12 562K d42 L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 563297
                                                                                    \Pi
## ||
         Successfully assigned alignments: 337596 (59.9%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6966_ATCTCAGG_TATCCTCT_cDNA190819_G12_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1361527
                                                                                    II
## ||
         Successfully assigned alignments : 991655 (72.8%)
                                                                                    \prod
## ||
         Running time : 0.08 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6966_ATCTCAGG_TCTCTCCG_cDNA190819_A12_562K_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 6624476
                                                                                    II
         Successfully assigned alignments: 5365531 (81.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.36 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CGAGGCTG_AAGGAGTA_cDNA190819_D8_562K_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1398301
         Successfully assigned alignments : 1206085 (86.3%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_CGAGGCTG_ACTGCATA_cDNA190819_E8_562K_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1371296
                                                                                    II
## ||
         Successfully assigned alignments: 1145895 (83.6%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CGAGGCTG_CGTCTAAT_cDNA190819_B8_562K_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 207808
         Successfully assigned alignments: 159332 (76.7%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CGAGGCTG_CTAAGCCT_cDNA190819_C8_562K_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 2254549
                                                                                    II
## ||
         Successfully assigned alignments: 1973942 (87.6%)
## ||
                                                                                    II
## ||
         Running time: 0.13 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_CGAGGCTG_CTCTCTAT_cDNA190819_H8_562K_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 3101929
                                                                                    | |
## ||
         Successfully assigned alignments: 2655195 (85.6%)
                                                                                    II
## ||
         Running time : 0.18 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6966_CGAGGCTG_GTAAGGAG_cDNA190819_F8_562K_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1075197
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 909400 (84.6%)
                                                                                    II
         Running time : 0.07 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6966_CGAGGCTG_TATCCTCT_cDNA190819_G8_562K_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 230935
                                                                                    II
## ||
         Successfully assigned alignments: 178826 (77.4%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6966_CGAGGCTG_TCTCTCCCG_cDNA190819_A8_562K_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 3933545
                                                                                    II
## ||
         Successfully assigned alignments : 3237362 (82.3%)
                                                                                    \prod
## ||
         Running time: 0.22 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CGTACTAG_AAGGAGTA_cDNA190819_D2_543P_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1950218
                                                                                    \Pi
         Successfully assigned alignments: 1616536 (82.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.11 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6966_CGTACTAG_ACTGCATA_cDNA190819_E2_543P_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 661602
         Successfully assigned alignments: 568973 (86.0%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_CGTACTAG_CGTCTAAT_cDNA190819_B2_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2346811
                                                                                    II
## ||
         Successfully assigned alignments: 1980565 (84.4%)
                                                                                    | |
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CGTACTAG_CTAAGCCT_cDNA190819_C2_543P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 94
         Successfully assigned alignments: 86 (91.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CGTACTAG_CTCTCTAT_cDNA190819_H2_543P_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 1280168
                                                                                    II
## ||
         Successfully assigned alignments: 1112332 (86.9%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_CGTACTAG_GTAAGGAG_cDNA190819_F2_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1149766
                                                                                    | |
## ||
         Successfully assigned alignments: 979091 (85.2%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6966_CGTACTAG_TATCCTCT_cDNA190819_G2_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 592784
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments : 505595 (85.3%)
                                                                                    II
         Running time: 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6966_CGTACTAG_TCTCTCCG_cDNA190819_A2_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2015903
                                                                                    II
## ||
         Successfully assigned alignments: 1749891 (86.8%)
                                                                                    II
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6966_CTCTCTAC_AAGGAGTA_cDNA190819_D7_562K_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1272497
                                                                                    II
## ||
         Successfully assigned alignments : 1048126 (82.4%)
                                                                                    \prod
## ||
         Running time : 0.08 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CTCTCTAC_ACTGCATA_cDNA190819_E7_562K_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 2040951
                                                                                    \Pi
         Successfully assigned alignments: 1755516 (86.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.12 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6966_CTCTCTAC_CGTCTAAT_cDNA190819_B7_562K_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 4161025
         Successfully assigned alignments : 3615517 (86.9\%)
## ||
                                                                                    II
## ||
         Running time: 0.23 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_CTCTCTAC_CTAAGCCT_cDNA190819_C7_562K_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 750607
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 638196 (85.0%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CTCTCTAC_CTCTCTAT_cDNA190819_H7_562K_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 3203468
         Successfully assigned alignments: 2704585 (84.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.18 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_CTCTCTAC_GTAAGGAG_cDNA190819_F7_562K_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 1130895
                                                                                    II
## ||
         Successfully assigned alignments: 946735 (83.7%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_CTCTCTAC_TATCCTCT_cDNA190819_G7_562K_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 2912376
## ||
         Successfully assigned alignments: 2389064 (82.0%)
                                                                                    II
## ||
         Running time : 0.17 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6966_CTCTCTAC_TCTCTCCG_cDNA190819_A7_562K_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 448598
                                                                                    \Pi
## ||
         Successfully assigned alignments: 354934 (79.1%)
                                                                                    II
         Running time: 0.03 minutes
## ||
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane6966 GCTCATGA AAGGAGTA cDNA190819 D11 562K d42 L0 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 226
                                                                                    II
## ||
         Successfully assigned alignments: 86 (38.1%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6966_GCTCATGA_ACTGCATA_cDNA190819_E11_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2982539
                                                                                    II
## ||
         Successfully assigned alignments : 2524648 (84.6%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.18 minutes
## ||
                                                                                    | |
## || Process BAM file lane6966_GCTCATGA_CGTCTAAT_cDNA190819_B11_562K_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 2435
                                                                                    II
         Successfully assigned alignments: 1498 (61.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6966_GCTCATGA_CTAAGCCT_cDNA190819_C11_562K_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 969577
         Successfully assigned alignments : 728464 (75.1%)
## ||
                                                                                    II
         Running time: 0.06 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane6966_GCTCATGA_CTCTCTAT_cDNA190819_H11_562K_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2496448
                                                                                    II
## ||
         Successfully assigned alignments: 1870356 (74.9%)
                                                                                    | |
## ||
         Running time: 0.14 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GCTCATGA_GTAAGGAG_cDNA190819_F11_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 6537
                                                                                    II
## ||
         Successfully assigned alignments: 4786 (73.2%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GCTCATGA_TATCCTCT_cDNA190819_G11_562K_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 2388428
                                                                                    II
## ||
         Successfully assigned alignments: 1530648 (64.1%)
## ||
                                                                                    II
## ||
         Running time: 0.13 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane6966_GCTCATGA_TCTCTCCG_cDNA190819_A11_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 786
                                                                                    | |
## ||
         Successfully assigned alignments: 118 (15.0%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6966_GGACTCCT_AAGGAGTA_cDNA190819_D5_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 564271
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 438035 (77.6%)
                                                                                    II
         Running time : 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6966 GGACTCCT ACTGCATA cDNA190819 E5 543P d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1392759
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1202182 (86.3%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_GGACTCCT_CGTCTAAT_cDNA190819_B5_543P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1933567
                                                                                    II
## ||
         Successfully assigned alignments: 1584523 (81.9%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.11 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GGACTCCT_CTAAGCCT_cDNA190819_C5_543P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 992083
                                                                                    II
         Successfully assigned alignments: 767847 (77.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GGACTCCT_CTCTCTAT_cDNA190819_H5_543P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
```

```
\prod
         Total alignments: 2213833
         Successfully assigned alignments : 1936676 (87.5%)
## ||
                                                                                    II
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_GGACTCCT_GTAAGGAG_cDNA190819_F5_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 1261274
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 1057792 (83.9%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GGACTCCT_TATCCTCT_cDNA190819_G5_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1968542
         Successfully assigned alignments: 1690109 (85.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GGACTCCT_TCTCTCCG_cDNA190819_A5_543P_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 2886610
                                                                                    II
## ||
         Successfully assigned alignments: 2492023 (86.3%)
## ||
                                                                                    II
## ||
         Running time: 0.16 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_GTAGAGGA_AAGGAGTA_cDNA190819_D10_562K_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1125042
                                                                                    | |
## ||
         Successfully assigned alignments: 816866 (72.6%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane6966_GTAGAGGA_ACTGCATA_cDNA190819_E10_562K_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 118803
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 85623 (72.1%)
                                                                                    II
         Running time : 0.01 minutes
## ||
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GTAGAGGA_CGTCTAAT_cDNA190819_B10_562K_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 473
                                                                                    \Pi
## ||
         Successfully assigned alignments: 87 (18.4%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6966_GTAGAGGA_CTAAGCCT_cDNA190819_C10_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 61940
                                                                                    II
## ||
         Successfully assigned alignments : 47786 (77.1%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.01 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GTAGAGGA_CTCTCTAT_cDNA190819_H10_562K_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 241
                                                                                    II
         Successfully assigned alignments: 100 (41.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6966_GTAGAGGA_GTAAGGAG_cDNA190819_F10_562K_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 509
         Successfully assigned alignments : 252 (49.5%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_GTAGAGGA_TATCCTCT_cDNA190819_G10_562K_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 678750
                                                                                    II
## ||
         Successfully assigned alignments: 425361 (62.7%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_GTAGAGGA_TCTCTCCG_cDNA190819_A10_562K_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
## ||
         Total alignments: 973
                                                                                    II
         Successfully assigned alignments: 346 (35.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TAAGGCGA_AAGGAGTA_cDNA190819_D1_543P_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 535217
                                                                                    II
## ||
         Successfully assigned alignments: 455498 (85.1%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_TAAGGCGA_ACTGCATA_cDNA190819_E1_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 358777
## ||
         Successfully assigned alignments: 305403 (85.1%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6966_TAAGGCGA_CGTCTAAT_cDNA190819_B1_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2239110
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1904407 (85.1%)
                                                                                    II
         Running time : 0.12 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TAAGGCGA_CTAAGCCT_cDNA190819_C1_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 56
                                                                                    \Pi
## ||
         Successfully assigned alignments: 45 (80.4%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6966_TAAGGCGA_CTCTCTAT_cDNA190819_H1_543P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 576092
                                                                                    II
## ||
         Successfully assigned alignments: 495607 (86.0%)
                                                                                    \prod
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TAAGGCGA_GTAAGGAG_cDNA190819_F1_543P_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 605348
                                                                                    \Pi
         Successfully assigned alignments: 508834 (84.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6966_TAAGGCGA_TATCCTCT_cDNA190819_G1_543P_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1632625
         Successfully assigned alignments : 1301418 (79.7%)
## ||
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_TAAGGCGA_TCTCTCCG_cDNA190819_A1_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 846601
                                                                                    II
         Successfully assigned alignments: 701828 (82.9%)
## ||
                                                                                    | |
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TAGGCATG_AAGGAGTA_cDNA190819_D6_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1278689
         Successfully assigned alignments: 1086019 (84.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TAGGCATG_ACTGCATA_cDNA190819_E6_543P_d42_L00 ... ||
         Paired-end reads are included.
         Total alignments: 857004
                                                                                    II
## ||
         Successfully assigned alignments: 623406 (72.7%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6966_TAGGCATG_CGTCTAAT_cDNA190819_B6_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 213811
## ||
         Successfully assigned alignments: 158302 (74.0%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6966_TAGGCATG_CTAAGCCT_cDNA190819_C6_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1612412
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1376118 (85.3%)
                                                                                    II
                                                                                    \prod
## ||
         Running time: 0.09 minutes
## ||
                                                                                    11
## || Process BAM file lane6966_TAGGCATG_CTCTCTAT_cDNA190819_H6_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2774307
                                                                                    \Pi
## ||
         Successfully assigned alignments: 2259658 (81.4%)
                                                                                    II
## ||
         Running time: 0.16 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6966_TAGGCATG_GTAAGGAG_cDNA190819_F6_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1220109
                                                                                    II
## ||
         Successfully assigned alignments : 1064288 (87.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.07 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TAGGCATG_TATCCTCT_cDNA190819_G6_543P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 887091
                                                                                    II
         Successfully assigned alignments: 688527 (77.6%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TAGGCATG_TCTCTCCCG_cDNA190819_A6_543P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1673640
         Successfully assigned alignments : 1250624 (74.7%)
## ||
                                                                                    II
                                                                                    II
## ||
         Running time: 0.10 minutes
## ||
                                                                                    II
## || Process BAM file lane6966_TCCTGAGC_AAGGAGTA_cDNA190819_D4_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 311483
                                                                                    II
         Successfully assigned alignments: 267538 (85.9%)
## ||
                                                                                    | |
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TCCTGAGC_ACTGCATA_cDNA190819_E4_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 806131
                                                                                    II
## ||
         Successfully assigned alignments: 692415 (85.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TCCTGAGC_CGTCTAAT_cDNA190819_B4_543P_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 2908549
                                                                                    II
## ||
         Successfully assigned alignments: 2490612 (85.6%)
                                                                                    II
## ||
## ||
         Running time: 0.16 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane6966_TCCTGAGC_CTAAGCCT_cDNA190819_C4_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1262766
                                                                                    | |
## ||
         Successfully assigned alignments: 1021254 (80.9%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6966_TCCTGAGC_CTCTCTAT_cDNA190819_H4_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1393409
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1177948 (84.5%)
                                                                                    II
         Running time : 0.08 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6966 TCCTGAGC GTAAGGAG cDNA190819 F4 543P d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 699256
                                                                                    \Pi
## ||
         Successfully assigned alignments: 595522 (85.2%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6966_TCCTGAGC_TATCCTCT_cDNA190819_G4_543P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 609322
                                                                                    II
## ||
         Successfully assigned alignments: 521473 (85.6%)
                                                                                    \prod
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6966_TCCTGAGC_TCTCTCCG_cDNA190819_A4_543P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 2206224
                                                                                    II
         Successfully assigned alignments: 1950750 (88.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.13 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6967_AAGAGGCA_AAGGAGTA_cDNA190820_D9_559G_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 745972
         Successfully assigned alignments : 533992 (71.6\%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_AAGAGGCA_ACTGCATA_cDNA190820_E9_559G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1272073
                                                                                    II
## ||
         Successfully assigned alignments: 916953 (72.1%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_AAGAGGCA_CGTCTAAT_cDNA190820_B9_559G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 2019117
         Successfully assigned alignments: 1454937 (72.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.12 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_AAGAGGCA_CTAAGCCT_cDNA190820_C9_559G_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1110981
                                                                                    II
## ||
         Successfully assigned alignments: 613995 (55.3%)
## ||
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6967_AAGAGGCA_CTCTCTAT_cDNA190820_H9_559G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 1162137
## ||
         Successfully assigned alignments: 842696 (72.5%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_AAGAGGCA_GTAAGGAG_cDNA190820_F9_559G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 828765
                                                                                    \Pi
## ||
         Successfully assigned alignments: 560666 (67.7%)
                                                                                    II
         Running time : 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6967_AAGAGGCA_TATCCTCT_cDNA190820_G9_559G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 866744
                                                                                    \Pi
## ||
         Successfully assigned alignments: 626804 (72.3%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_AAGAGGCA_TCTCTCCCG_cDNA190820_A9_559G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1452927
                                                                                    II
## ||
         Successfully assigned alignments : 1085334 (74.7%)
                                                                                    \prod
## ||
         Running time : 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_AGGCAGAA_AAGGAGTA_cDNA190820_D3_520P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 996131
                                                                                    II
         Successfully assigned alignments: 759582 (76.3%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6967_AGGCAGAA_ACTGCATA_cDNA190820_E3_520P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 737508
## ||
         Successfully assigned alignments: 528715 (71.7%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_AGGCAGAA_CGTCTAAT_cDNA190820_B3_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1154117
                                                                                    II
         Successfully assigned alignments: 830369 (71.9%)
## ||
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_AGGCAGAA_CTAAGCCT_cDNA190820_C3_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1217877
         Successfully assigned alignments: 964575 (79.2%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_AGGCAGAA_CTCTCTAT_cDNA190820_H3_520P_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 974972
                                                                                    II
## ||
         Successfully assigned alignments: 712873 (73.1%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6967_AGGCAGAA_GTAAGGAG_cDNA190820_F3_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 829861
## ||
         Successfully assigned alignments: 634369 (76.4%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6967_AGGCAGAA_TATCCTCT_cDNA190820_G3_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 823799
                                                                                    \Pi
## ||
         Successfully assigned alignments: 596930 (72.5%)
                                                                                    II
                                                                                    \prod
## ||
         Running time : 0.05 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6967_AGGCAGAA_TCTCTCCG_cDNA190820_A3_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1351297
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1081987 (80.1%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_ATCTCAGG_AAGGAGTA_cDNA190820_D12_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1711614
                                                                                    II
## ||
         Successfully assigned alignments : 1181942 (69.1%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.10 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6967_ATCTCAGG_ACTGCATA_cDNA190820_E12_559G_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 2044868
                                                                                    II
         Successfully assigned alignments: 1446784 (70.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.12 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6967_ATCTCAGG_CGTCTAAT_cDNA190820_B12_559G_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2274603
         Successfully assigned alignments : 1588784 (69.8%)
## ||
                                                                                    II
## ||
                                                                                    II
         Running time: 0.13 minutes
## ||
                                                                                    II
## || Process BAM file lane6967_ATCTCAGG_CTAAGCCT_cDNA190820_C12_559G_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2074146
                                                                                    II
         Successfully assigned alignments: 1496495 (72.1%)
## ||
                                                                                    | |
## ||
         Running time: 0.12 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_ATCTCAGG_CTCTCTAT_cDNA190820_H12_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1257141
         Successfully assigned alignments: 953453 (75.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_ATCTCAGG_GTAAGGAG_cDNA190820_F12_559G_d42_L0 ... ||
         Paired-end reads are included.
         Total alignments : 1266110
                                                                                    II
## ||
         Successfully assigned alignments: 904637 (71.5%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane6967_ATCTCAGG_TATCCTCT_cDNA190820_G12_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1282117
                                                                                    | |
## ||
         Successfully assigned alignments: 812971 (63.4%)
                                                                                    II
## ||
         Running time : 0.08 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_ATCTCAGG_TCTCTCCG_cDNA190820_A12_559G_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2273051
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1701967 (74.9%)
                                                                                    II
         Running time: 0.13 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6967 CGAGGCTG AAGGAGTA cDNA190820 D8 559G d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1063668
                                                                                    \Pi
## ||
         Successfully assigned alignments: 744364 (70.0%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_CGAGGCTG_ACTGCATA_cDNA190820_E8_559G_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 739724
                                                                                    II
## ||
         Successfully assigned alignments: 535185 (72.3%)
                                                                                    \prod
## ||
         Running time: 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGAGGCTG_CGTCTAAT_cDNA190820_B8_559G_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1078769
                                                                                    \Pi
         Successfully assigned alignments: 741432 (68.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGAGGCTG_CTAAGCCT_cDNA190820_C8_559G_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 895836
         Successfully assigned alignments : 646867 (72.2%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_CGAGGCTG_CTCTCTAT_cDNA190820_H8_559G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 717550
                                                                                    II
## ||
         Successfully assigned alignments: 515439 (71.8%)
                                                                                    | |
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGAGGCTG_GTAAGGAG_cDNA190820_F8_559G_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 959515
         Successfully assigned alignments: 698447 (72.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGAGGCTG_TATCCTCT_cDNA190820_G8_559G_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 702507
                                                                                    II
## ||
         Successfully assigned alignments: 524999 (74.7%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6967_CGAGGCTG_TCTCTCCG_cDNA190820_A8_559G_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1125171
                                                                                    | |
## ||
         Successfully assigned alignments: 825114 (73.3%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_CGTACTAG_AAGGAGTA_cDNA190820_D2_520P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 783230
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 600151 (76.6%)
                                                                                    II
         Running time: 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGTACTAG_ACTGCATA_cDNA190820_E2_520P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 591232
                                                                                    II
## ||
         Successfully assigned alignments: 386569 (65.4%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_CGTACTAG_CGTCTAAT_cDNA190820_B2_520P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1238898
                                                                                    II
## ||
         Successfully assigned alignments: 846548 (68.3%)
                                                                                    \prod
## ||
         Running time: 0.07 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGTACTAG_CTAAGCCT_cDNA190820_C2_520P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 950517
                                                                                    \Pi
         Successfully assigned alignments: 716949 (75.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6967_CGTACTAG_CTCTCTAT_cDNA190820_H2_520P_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 619423
         Successfully assigned alignments : 534888 (86.4\%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_CGTACTAG_GTAAGGAG_cDNA190820_F2_520P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 371569
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 252925 (68.1%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGTACTAG_TATCCTCT_cDNA190820_G2_520P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 492005
         Successfully assigned alignments: 342720 (69.7%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CGTACTAG_TCTCTCCG_cDNA190820_A2_520P_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 1239595
                                                                                    II
## ||
         Successfully assigned alignments: 1005887 (81.1%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6967_CTCTCTAC_AAGGAGTA_cDNA190820_D7_559G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 996656
## ||
         Successfully assigned alignments: 736124 (73.9%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_CTCTCTAC_ACTGCATA_cDNA190820_E7_559G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1087303
                                                                                    \Pi
## ||
         Successfully assigned alignments: 824662 (75.8%)
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CTCTCTAC_CGTCTAAT_cDNA190820_B7_559G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1506935
                                                                                    II
## ||
         Successfully assigned alignments: 1169439 (77.6%)
                                                                                    II
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_CTCTCTAC_CTAAGCCT_cDNA190820_C7_559G_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1067715
                                                                                    II
## ||
         Successfully assigned alignments: 761010 (71.3%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.07 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CTCTCTAC_CTCTCTAT_cDNA190820_H7_559G_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1072946
                                                                                    \Pi
         Successfully assigned alignments: 791306 (73.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6967_CTCTCTAC_GTAAGGAG_cDNA190820_F7_559G_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 980312
         Successfully assigned alignments : 753863 (76.9%)
## ||
                                                                                    II
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## ||
## || Process BAM file lane6967_CTCTCTAC_TATCCTCT_cDNA190820_G7_559G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1400183
                                                                                    \Pi
         Successfully assigned alignments : 1100027 (78.6%)
## ||
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_CTCTCTAC_TCTCTCCG_cDNA190820_A7_559G_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1074942
                                                                                    II
## ||
         Successfully assigned alignments: 788628 (73.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GCTCATGA_AAGGAGTA_cDNA190820_D11_559G_d42_L0 ...
         Paired-end reads are included.
         Total alignments : 1358502
                                                                                    II
## ||
         Successfully assigned alignments: 857554 (63.1%)
                                                                                    II
## ||
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane6967_GCTCATGA_ACTGCATA_cDNA190820_E11_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1161712
                                                                                    | |
## ||
         Successfully assigned alignments: 862461 (74.2%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_GCTCATGA_CGTCTAAT_cDNA190820_B11_559G_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2162638
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1522658 (70.4%)
                                                                                    II
         Running time : 0.12 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6967 GCTCATGA CTAAGCCT cDNA190820 C11 559G d42 L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2112862
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1630962 (77.2%)
                                                                                    \Pi
## ||
         Running time : 0.12 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_GCTCATGA_CTCTCTAT_cDNA190820_H11_559G_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 1210557
                                                                                    II
## ||
         Successfully assigned alignments: 836723 (69.1%)
                                                                                    \prod
## ||
         Running time: 0.07 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GCTCATGA_GTAAGGAG_cDNA190820_F11_559G_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1245318
                                                                                    II
         Successfully assigned alignments: 829116 (66.6%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6967_GCTCATGA_TATCCTCT_cDNA190820_G11_559G_d42_L0 ... ||
## || Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 898714
         Successfully assigned alignments : 604776 (67.3\%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_GCTCATGA_TCTCTCCG_cDNA190820_A11_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1927370
                                                                                    II
## ||
         Successfully assigned alignments: 1361501 (70.6%)
                                                                                    | |
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GGACTCCT_AAGGAGTA_cDNA190820_D5_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 714240
         Successfully assigned alignments: 515326 (72.2%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GGACTCCT_ACTGCATA_cDNA190820_E5_520P_d42_L00 ... ||
         Paired-end reads are included.
         Total alignments: 709463
                                                                                    II
## ||
         Successfully assigned alignments: 516489 (72.8%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6967_GGACTCCT_CGTCTAAT_cDNA190820_B5_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 1763440
## ||
         Successfully assigned alignments: 1404387 (79.6%)
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_GGACTCCT_CTAAGCCT_cDNA190820_C5_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 775669
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 570573 (73.6%)
                                                                                    II
         Running time : 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GGACTCCT_CTCTCTAT_cDNA190820_H5_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1180626
                                                                                    \Pi
## ||
         Successfully assigned alignments: 918939 (77.8%)
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_GGACTCCT_GTAAGGAG_cDNA190820_F5_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1032420
                                                                                    II
## ||
         Successfully assigned alignments : 789078 (76.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.07 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GGACTCCT_TATCCTCT_cDNA190820_G5_520P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1204905
                                                                                    II
         Successfully assigned alignments: 906299 (75.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GGACTCCT_TCTCTCCG_cDNA190820_A5_520P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1176418
         Successfully assigned alignments : 1042410 (88.6%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_GTAGAGGA_AAGGAGTA_cDNA190820_D10_559G_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1369910
                                                                                    II
## ||
         Successfully assigned alignments: 900154 (65.7%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GTAGAGGA_ACTGCATA_cDNA190820_E10_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 973085
         Successfully assigned alignments: 678834 (69.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GTAGAGGA_CGTCTAAT_cDNA190820_B10_559G_d42_L0 ... ||
         Paired-end reads are included.
         Total alignments: 1808478
                                                                                    II
## ||
         Successfully assigned alignments: 1270464 (70.3%)
## ||
                                                                                    II
## ||
         Running time : 0.11 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane6967_GTAGAGGA_CTAAGCCT_cDNA190820_C10_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1659378
                                                                                    | |
## ||
         Successfully assigned alignments: 1257867 (75.8%)
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_GTAGAGGA_CTCTCTAT_cDNA190820_H10_559G_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1163886
                                                                                    \Pi
## ||
         Successfully assigned alignments: 830497 (71.4%)
                                                                                    II
                                                                                    \prod
## ||
         Running time : 0.07 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GTAGAGGA_GTAAGGAG_cDNA190820_F10_559G_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1195359
                                                                                    \Pi
## ||
         Successfully assigned alignments: 900513 (75.3%)
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_GTAGAGGA_TATCCTCT_cDNA190820_G10_559G_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
         Total alignments: 957885
                                                                                    II
## ||
         Successfully assigned alignments : 552794 (57.7%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.06 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6967_GTAGAGGA_TCTCTCCG_cDNA190820_A10_559G_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1481760
                                                                                    \Pi
         Successfully assigned alignments: 1038520 (70.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.09 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TAAGGCGA_AAGGAGTA_cDNA190820_D1_520P_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 814682
         Successfully assigned alignments : 593833 (72.9%)
## ||
                                                                                    II
## ||
                                                                                    II
         Running time: 0.05 minutes
## ||
                                                                                    II
## || Process BAM file lane6967_TAAGGCGA_ACTGCATA_cDNA190820_E1_520P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 362208
                                                                                    II
## ||
         Successfully assigned alignments: 263840 (72.8%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TAAGGCGA_CGTCTAAT_cDNA190820_B1_520P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1230424
         Successfully assigned alignments: 924457 (75.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TAAGGCGA_CTAAGCCT_cDNA190820_C1_520P_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 928789
                                                                                    II
## ||
         Successfully assigned alignments: 705614 (76.0%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6967_TAAGGCGA_CTCTCTAT_cDNA190820_H1_520P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 579681
                                                                                    | |
## ||
         Successfully assigned alignments: 383290 (66.1%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6967_TAAGGCGA_GTAAGGAG_cDNA190820_F1_520P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 279536
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments : 203968 (73.0%)
                                                                                    II
         Running time: 0.02 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6967_TAAGGCGA_TATCCTCT_cDNA190820_G1_520P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 322319
                                                                                    \Pi
## ||
         Successfully assigned alignments: 223724 (69.4%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6967_TAAGGCGA_TCTCTCCG_cDNA190820_A1_520P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1016703
                                                                                    II
## ||
         Successfully assigned alignments: 798606 (78.5%)
                                                                                    \prod
## ||
         Running time: 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TAGGCATG_AAGGAGTA_cDNA190820_D6_520P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 936656
                                                                                    \Pi
         Successfully assigned alignments: 695425 (74.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6967_TAGGCATG_ACTGCATA_cDNA190820_E6_520P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 788482
         Successfully assigned alignments : 580826 (73.7%)
## ||
                                                                                    II
         Running time : 0.05 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane6967_TAGGCATG_CGTCTAAT_cDNA190820_B6_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1882044
                                                                                    II
## ||
         Successfully assigned alignments: 1351381 (71.8%)
                                                                                    | |
## ||
         Running time: 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TAGGCATG_CTAAGCCT_cDNA190820_C6_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1158857
                                                                                    II
## ||
         Successfully assigned alignments: 834788 (72.0%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TAGGCATG_CTCTCTAT_cDNA190820_H6_520P_d42_L00 ... ||
         Paired-end reads are included.
         Total alignments: 1694533
                                                                                    II
## ||
         Successfully assigned alignments: 1374610 (81.1%)
## ||
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane6967_TAGGCATG_GTAAGGAG_cDNA190820_F6_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1135191
                                                                                    | |
## ||
         Successfully assigned alignments: 883919 (77.9%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6967_TAGGCATG_TATCCTCT_cDNA190820_G6_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 685016
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 449461 (65.6%)
                                                                                    II
         Running time : 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6967_TAGGCATG_TCTCTCCG_cDNA190820_A6_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1385313
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1099445 (79.4%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6967_TCCTGAGC_AAGGAGTA_cDNA190820_D4_520P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 408444
                                                                                    II
## ||
         Successfully assigned alignments: 312144 (76.4%)
                                                                                    \prod
## ||
         Running time : 0.03 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TCCTGAGC_ACTGCATA_cDNA190820_E4_520P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1036493
                                                                                    II
         Successfully assigned alignments: 807782 (77.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TCCTGAGC_CGTCTAAT_cDNA190820_B4_520P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
```

```
\prod
         Total alignments: 1082783
         Successfully assigned alignments: 800921 (74.0%)
## ||
                                                                                    II
         Running time: 0.06 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane6967_TCCTGAGC_CTAAGCCT_cDNA190820_C4_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 888616
                                                                                    II
## ||
         Successfully assigned alignments: 669655 (75.4%)
                                                                                    | |
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TCCTGAGC_CTCTCTAT_cDNA190820_H4_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1082687
                                                                                    II
## ||
         Successfully assigned alignments: 849759 (78.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6967_TCCTGAGC_GTAAGGAG_cDNA190820_F4_520P_d42_L00 \dots
         Paired-end reads are included.
         Total alignments: 416414
                                                                                    II
## ||
         Successfully assigned alignments: 309894 (74.4%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6967_TCCTGAGC_TATCCTCT_cDNA190820_G4_520P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 888002
                                                                                    | |
## ||
         Successfully assigned alignments: 645271 (72.7%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6967_TCCTGAGC_TCTCTCCG_cDNA190820_A4_520P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1690867
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1318652 (78.0%)
                                                                                    II
                                                                                    \prod
## ||
         Running time : 0.10 minutes
## ||
                                                                                    11
## || Process BAM file lane6976 AAGAGGCA AAGGAGTA cDNA190821 D9 622A d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 564035
                                                                                    \Pi
## ||
         Successfully assigned alignments: 444462 (78.8%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_AAGAGGCA_ACTGCATA_cDNA190821_E9_622A_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 803886
                                                                                    II
## ||
         Successfully assigned alignments : 542576 (67.5%)
                                                                                    \prod
## ||
         Running time: 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_AAGAGGCA_CGTCTAAT_cDNA190821_B9_622A_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 594767
                                                                                    II
         Successfully assigned alignments: 430351 (72.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6976_AAGAGGCA_CTAAGCCT_cDNA190821_C9_622A_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 717490
         Successfully assigned alignments : 476244 (66.4%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_AAGAGGCA_CTCTCTAT_cDNA190821_H9_622A_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1097722
                                                                                    II
## ||
         Successfully assigned alignments: 825248 (75.2%)
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_AAGAGGCA_GTAAGGAG_cDNA190821_F9_622A_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1429888
         Successfully assigned alignments: 1140332 (79.7%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_AAGAGGCA_TATCCTCT_cDNA190821_G9_622A_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1609612
                                                                                    II
## ||
         Successfully assigned alignments: 1318534 (81.9%)
## ||
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_AAGAGGCA_TCTCTCCG_cDNA190821_A9_622A_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1016221
                                                                                    | |
## ||
         Successfully assigned alignments: 735879 (72.4%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6976_AGGCAGAA_AAGGAGTA_cDNA190821_D3_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 846580
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 589108 (69.6%)
                                                                                    II
         Running time: 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6976_AGGCAGAA_ACTGCATA_cDNA190821_E3_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 744505
                                                                                    II
## ||
         Successfully assigned alignments: 577565 (77.6%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_AGGCAGAA_CGTCTAAT_cDNA190821_B3_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1676026
                                                                                    II
## ||
         Successfully assigned alignments : 1181173 (70.5%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.10 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6976_AGGCAGAA_CTAAGCCT_cDNA190821_C3_544Q_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 761628
                                                                                    II
         Successfully assigned alignments: 569482 (74.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6976_AGGCAGAA_CTCTCTAT_cDNA190821_H3_544Q_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1044711
         Successfully assigned alignments: 779106 (74.6%)
## ||
                                                                                    II
         Running time: 0.06 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane6976_AGGCAGAA_GTAAGGAG_cDNA190821_F3_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 524760
                                                                                    \Pi
         Successfully assigned alignments: 385788 (73.5%)
## ||
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_AGGCAGAA_TATCCTCT_cDNA190821_G3_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1003329
                                                                                    II
## ||
         Successfully assigned alignments: 205016 (20.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_AGGCAGAA_TCTCTCCG_cDNA190821_A3_544Q_d42_L00 ... ||
         Paired-end reads are included.
         Total alignments: 1027498
                                                                                    II
## ||
         Successfully assigned alignments: 779234 (75.8%)
                                                                                    II
## ||
## ||
         Running time : 0.06 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane6976_ATCTCAGG_AAGGAGTA_cDNA190821_D12_622A_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 3133759
                                                                                    | |
## ||
         Successfully assigned alignments: 2383856 (76.1%)
                                                                                    II
## ||
         Running time : 0.18 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6976_ATCTCAGG_ACTGCATA_cDNA190821_E12_622A_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2006907
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1540288 (76.7%)
                                                                                    II
         Running time : 0.12 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6976 ATCTCAGG CGTCTAAT cDNA190821 B12 622A d42 L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2174498
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1457512 (67.0%)
                                                                                    \Pi
## ||
         Running time: 0.12 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_ATCTCAGG_CTAAGCCT_cDNA190821_C12_622A_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 2586698
                                                                                    II
## ||
         Successfully assigned alignments: 2000926 (77.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.15 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6976_ATCTCAGG_CTCTCTAT_cDNA190821_H12_622A_d42_L0 ...
## ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
         Total alignments : 1250241
                                                                                    II
         Successfully assigned alignments: 979584 (78.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.08 minutes
                                                                                    \prod
## ||
                                                                                    | | |
## || Process BAM file lane6976_ATCTCAGG_GTAAGGAG_cDNA190821_F12_622A_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2271593
         Successfully assigned alignments : 1849329 (81.4%)
## ||
                                                                                    II
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_ATCTCAGG_TATCCTCT_cDNA190821_G12_622A_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2722733
                                                                                    II
## ||
         Successfully assigned alignments: 1953138 (71.7%)
                                                                                    | |
## ||
         Running time: 0.16 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_ATCTCAGG_TCTCTCCG_cDNA190821_A12_622A_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1327803
         Successfully assigned alignments: 1070019 (80.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CGAGGCTG_AAGGAGTA_cDNA190821_D8_622A_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 960372
                                                                                    II
## ||
         Successfully assigned alignments: 674180 (70.2%)
                                                                                    II
## ||
## ||
         Running time: 0.06 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_CGAGGCTG_ACTGCATA_cDNA190821_E8_622A_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 936957
                                                                                    | |
## ||
         Successfully assigned alignments: 662398 (70.7%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6976_CGAGGCTG_CGTCTAAT_cDNA190821_B8_622A_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 612994
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 444352 (72.5%)
                                                                                    II
         Running time: 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CGAGGCTG_CTAAGCCT_cDNA190821_C8_622A_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1033652
                                                                                    \Pi
## ||
         Successfully assigned alignments: 844522 (81.7%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6976_CGAGGCTG_CTCTCTAT_cDNA190821_H8_622A_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 578409
                                                                                    II
## ||
         Successfully assigned alignments: 457328 (79.1%)
                                                                                    \prod
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CGAGGCTG_GTAAGGAG_cDNA190821_F8_622A_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 384490
                                                                                    \Pi
         Successfully assigned alignments: 283385 (73.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CGAGGCTG_TATCCTCT_cDNA190821_G8_622A_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 966254
         Successfully assigned alignments: 783612 (81.1%)
## ||
                                                                                    II
         Running time: 0.06 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_CGAGGCTG_TCTCTCCG_cDNA190821_A8_622A_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 612533
                                                                                    II
         Successfully assigned alignments: 463523 (75.7%)
## ||
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CGTACTAG_AAGGAGTA_cDNA190821_D2_544Q_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 942774
                                                                                    II
## ||
         Successfully assigned alignments: 659855 (70.0%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CGTACTAG_ACTGCATA_cDNA190821_E2_544Q_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 431386
                                                                                    II
## ||
         Successfully assigned alignments: 366526 (85.0%)
## ||
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_CGTACTAG_CGTCTAAT_cDNA190821_B2_544Q_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1645508
                                                                                    | |
## ||
         Successfully assigned alignments: 1099941 (66.8%)
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6976_CGTACTAG_CTAAGCCT_cDNA190821_C2_544Q_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1266096
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 945102 (74.6%)
                                                                                    II
         Running time: 0.07 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6976_CGTACTAG_CTCTCTAT_cDNA190821_H2_544Q_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1325213
                                                                                    II
## ||
         Successfully assigned alignments: 937326 (70.7%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6976_CGTACTAG_GTAAGGAG_cDNA190821_F2_544Q_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 961
                                                                                    II
## ||
         Successfully assigned alignments: 725 (75.4%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CGTACTAG_TATCCTCT_cDNA190821_G2_544Q_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 749264
                                                                                    \Pi
         Successfully assigned alignments: 512120 (68.3%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6976_CGTACTAG_TCTCTCCG_cDNA190821_A2_544Q_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1119726
         Successfully assigned alignments: 816400 (72.9%)
## ||
                                                                                    II
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## ||
## || Process BAM file lane6976_CTCTCTAC_AAGGAGTA_cDNA190821_D7_622A_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 657749
                                                                                    II
## ||
         Successfully assigned alignments: 474045 (72.1%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CTCTCTAC_ACTGCATA_cDNA190821_E7_622A_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 737151
                                                                                    II
## ||
         Successfully assigned alignments: 513422 (69.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CTCTCTAC_CGTCTAAT_cDNA190821_B7_622A_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 1270560
                                                                                    II
## ||
         Successfully assigned alignments: 892098 (70.2%)
                                                                                    II
## ||
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_CTCTCTAC_CTAAGCCT_cDNA190821_C7_622A_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1274641
                                                                                    | |
## ||
         Successfully assigned alignments: 1047071 (82.1%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6976_CTCTCTAC_CTCTCTAT_cDNA190821_H7_622A_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1242872
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 960991 (77.3%)
                                                                                    II
         Running time: 0.07 minutes
                                                                                    \prod
## ||
                                                                                    II
## ||
## || Process BAM file lane6976 CTCTCTAC GTAAGGAG cDNA190821 F7 622A dO LO01 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1030653
                                                                                    \Pi
## ||
         Successfully assigned alignments: 819164 (79.5%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_CTCTCTAC_TATCCTCT_cDNA190821_G7_622A_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1303225
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 952277 (73.1%)
                                                                                    \prod
         Running time: 0.08 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_CTCTCTAC_TCTCTCCG_cDNA190821_A7_622A_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
         Total alignments : 1245790
                                                                                    \Pi
         Successfully assigned alignments: 948311 (76.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6976_GCTCATGA_AAGGAGTA_cDNA190821_D11_622A_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 46
         Successfully assigned alignments : 5 (10.9%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_GCTCATGA_ACTGCATA_cDNA190821_E11_622A_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 41
                                                                                    \Pi
## ||
         Successfully assigned alignments : 5 (12.2%)
                                                                                    | | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GCTCATGA_CGTCTAAT_cDNA190821_B11_622A_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2719360
                                                                                    II
## ||
         Successfully assigned alignments: 1980619 (72.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.15 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GCTCATGA_CTAAGCCT_cDNA190821_C11_622A_d42_L0 ... ||
         Paired-end reads are included.
         Total alignments: 2697496
                                                                                    II
## ||
         Successfully assigned alignments: 2070143 (76.7%)
                                                                                    II
## ||
## ||
         Running time : 0.15 minutes
                                                                                    \Pi
                                                                                    \Pi
## || Process BAM file lane6976_GCTCATGA_CTCTCTAT_cDNA190821_H11_622A_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1512064
                                                                                    | |
## ||
         Successfully assigned alignments: 920645 (60.9%)
                                                                                    II
## ||
         Running time : 0.09 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6976_GCTCATGA_GTAAGGAG_cDNA190821_F11_622A_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 19
                                                                                    \Pi
## ||
         Successfully assigned alignments : 5 (26.3%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GCTCATGA_TATCCTCT_cDNA190821_G11_622A_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2158551
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1656562 (76.7%)
                                                                                    \Pi
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_GCTCATGA_TCTCTCCG_cDNA190821_A11_622A_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 2124925
                                                                                    II
## ||
         Successfully assigned alignments: 1614061 (76.0%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.12 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GGACTCCT_AAGGAGTA_cDNA190821_D5_544Q_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1156323
                                                                                    \Pi
         Successfully assigned alignments: 904043 (78.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GGACTCCT_ACTGCATA_cDNA190821_E5_544Q_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 666821
         Successfully assigned alignments : 463429 (69.5%)
## ||
                                                                                    II
         Running time : 0.04 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_GGACTCCT_CGTCTAAT_cDNA190821_B5_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 851777
                                                                                    II
## ||
         Successfully assigned alignments: 555818 (65.3%)
                                                                                    | |
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GGACTCCT_CTAAGCCT_cDNA190821_C5_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 887973
                                                                                    II
## ||
         Successfully assigned alignments: 709829 (79.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GGACTCCT_CTCTCTAT_cDNA190821_H5_544Q_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1250856
                                                                                    II
## ||
         Successfully assigned alignments: 982279 (78.5%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_GGACTCCT_GTAAGGAG_cDNA190821_F5_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 508050
                                                                                    | |
## ||
         Successfully assigned alignments: 384502 (75.7%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane6976_GGACTCCT_TATCCTCT_cDNA190821_G5_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1120041
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 951691 (85.0%)
                                                                                    II
         Running time: 0.07 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6976_GGACTCCT_TCTCTCCG_cDNA190821_A5_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1112977
                                                                                    \Pi
## ||
         Successfully assigned alignments: 854871 (76.8%)
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6976_GTAGAGGA_AAGGAGTA_cDNA190821_D10_622A_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1173818
                                                                                    II
## ||
         Successfully assigned alignments : 888109 (75.7%)
                                                                                    \prod
## ||
         Running time: 0.07 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GTAGAGGA_ACTGCATA_cDNA190821_E10_622A_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 813236
                                                                                    II
         Successfully assigned alignments: 644830 (79.3%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6976_GTAGAGGA_CGTCTAAT_cDNA190821_B10_622A_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2133833
         Successfully assigned alignments : 1641382 (76.9%)
## ||
                                                                                    II
## ||
         Running time: 0.12 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_GTAGAGGA_CTAAGCCT_cDNA190821_C10_622A_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1174929
                                                                                    II
## ||
         Successfully assigned alignments: 924876 (78.7%)
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GTAGAGGA_CTCTCTAT_cDNA190821_H10_622A_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
## ||
         Total alignments: 1857529
                                                                                    II
         Successfully assigned alignments: 1381460 (74.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GTAGAGGA_GTAAGGAG_cDNA190821_F10_622A_d42_L0 ...
         Paired-end reads are included.
         Total alignments : 172403
                                                                                    II
## ||
         Successfully assigned alignments: 134055 (77.8%)
## ||
                                                                                    II
## ||
         Running time: 0.02 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_GTAGAGGA_TATCCTCT_cDNA190821_G10_622A_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2089970
                                                                                    | |
## ||
         Successfully assigned alignments: 1609073 (77.0%)
                                                                                    II
## ||
         Running time : 0.12 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane6976_GTAGAGGA_TCTCTCCG_cDNA190821_A10_622A_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1480673
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1151570 (77.8%)
                                                                                    II
                                                                                    \prod
## ||
         Running time : 0.09 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane6976 TAAGGCGA AAGGAGTA cDNA190821 D1 544Q d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1343995
                                                                                    \Pi
## ||
         Successfully assigned alignments: 937900 (69.8%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6976_TAAGGCGA_ACTGCATA_cDNA190821_E1_544Q_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1034251
                                                                                    II
## ||
         Successfully assigned alignments: 841609 (81.4%)
                                                                                    \prod
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TAAGGCGA_CGTCTAAT_cDNA190821_B1_544Q_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1196040
                                                                                    \Pi
         Successfully assigned alignments: 843279 (70.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6976_TAAGGCGA_CTAAGCCT_cDNA190821_C1_544Q_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1180896
## ||
         Successfully assigned alignments: 905366 (76.7%)
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_TAAGGCGA_CTCTCTAT_cDNA190821_H1_544Q_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1124832
                                                                                    II
## ||
         Successfully assigned alignments: 944656 (84.0%)
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TAAGGCGA_GTAAGGAG_cDNA190821_F1_544Q_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 10202
                                                                                    II
## ||
         Successfully assigned alignments: 8242 (80.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TAAGGCGA_TATCCTCT_cDNA190821_G1_544Q_d0_L001 ...
         Paired-end reads are included.
         Total alignments: 1500565
                                                                                    II
## ||
         Successfully assigned alignments: 1137276 (75.8%)
## ||
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_TAAGGCGA_TCTCTCCG_cDNA190821_A1_544Q_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 911010
                                                                                    | |
## ||
         Successfully assigned alignments: 662686 (72.7%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6976_TAGGCATG_AAGGAGTA_cDNA190821_D6_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 300223
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 245676 (81.8%)
                                                                                    II
         Running time: 0.02 minutes
## ||
                                                                                    П
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TAGGCATG_ACTGCATA_cDNA190821_E6_544Q_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 907745
                                                                                    II
## ||
         Successfully assigned alignments: 697750 (76.9%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane6976_TAGGCATG_CGTCTAAT_cDNA190821_B6_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1585129
                                                                                    II
## ||
         Successfully assigned alignments : 1184285 (74.7%)
                                                                                    \prod
## ||
         Running time : 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TAGGCATG_CTAAGCCT_cDNA190821_C6_544Q_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1328634
                                                                                    II
         Successfully assigned alignments: 982234 (73.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.08 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane6976_TAGGCATG_CTCTCTAT_cDNA190821_H6_544Q_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1371702
         Successfully assigned alignments : 1044727 (76.2%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_TAGGCATG_GTAAGGAG_cDNA190821_F6_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 633802
                                                                                    II
## ||
         Successfully assigned alignments: 442561 (69.8%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TAGGCATG_TATCCTCT_cDNA190821_G6_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1159251
         Successfully assigned alignments: 882515 (76.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TAGGCATG_TCTCTCCG_cDNA190821_A6_544Q_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1661525
                                                                                    II
## ||
         Successfully assigned alignments: 1236767 (74.4%)
## ||
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane6976_TCCTGAGC_AAGGAGTA_cDNA190821_D4_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 362549
                                                                                    | |
## ||
         Successfully assigned alignments: 268420 (74.0%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane6976_TCCTGAGC_ACTGCATA_cDNA190821_E4_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 650860
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 464651 (71.4%)
                                                                                    II
         Running time: 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane6976_TCCTGAGC_CGTCTAAT_cDNA190821_B4_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1274633
                                                                                    II
## ||
         Successfully assigned alignments: 888754 (69.7%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_TCCTGAGC_CTAAGCCT_cDNA190821_C4_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 855532
                                                                                    II
## ||
         Successfully assigned alignments: 702111 (82.1%)
                                                                                    \prod
## ||
         Running time : 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TCCTGAGC_CTCTCTAT_cDNA190821_H4_544Q_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1059575
                                                                                    \Pi
         Successfully assigned alignments: 747209 (70.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane6976_TCCTGAGC_GTAAGGAG_cDNA190821_F4_544Q_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 475273
         Successfully assigned alignments : 361722 (76.1%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane6976_TCCTGAGC_TATCCTCT_cDNA190821_G4_544Q_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1242369
                                                                                    II
## ||
         Successfully assigned alignments: 997230 (80.3%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane6976_TCCTGAGC_TCTCTCCG_cDNA190821_A4_544Q_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1454050
         Successfully assigned alignments: 1097680 (75.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_AAGAGGCA_AAGGAGTA_lib190910_D9_526W_d42_L001 ...
         Paired-end reads are included.
         Total alignments: 6359
                                                                                    II
## ||
         Successfully assigned alignments: 4932 (77.6%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7055_AAGAGGCA_ACTGCATA_lib190910_E9_526W_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 1725583
## ||
         Successfully assigned alignments: 1497162 (86.8%)
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7055_AAGAGGCA_CGTCTAAT_lib190910_B9_526W_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 309750
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 217150 (70.1%)
                                                                                    II
         Running time: 0.02 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7055_AAGAGGCA_CTAAGCCT_lib190910_C9_526W_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1022401
                                                                                    II
## ||
         Successfully assigned alignments: 721275 (70.5%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7055_AAGAGGCA_CTCTCTAT_lib190910_H9_526W_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1360479
                                                                                    II
## ||
         Successfully assigned alignments : 1012721 (74.4%)
                                                                                    \prod
## ||
         Running time : 0.08 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_AAGAGGCA_GTAAGGAG_lib190910_F9_526W_d42_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1647981
                                                                                    \Pi
         Successfully assigned alignments: 1391189 (84.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.10 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7055_AAGAGGCA_TATCCTCT_lib190910_G9_526W_d42_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 406941
         Successfully assigned alignments: 298809 (73.4%)
## ||
                                                                                    II
         Running time: 0.03 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane7055_AAGAGGCA_TCTCTCCG_lib190910_A9_526W_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2
                                                                                    II
## ||
         Successfully assigned alignments : 2 (100.0%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_AGGCAGAA_AAGGAGTA_lib190910_D3_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 426047
                                                                                    II
## ||
         Successfully assigned alignments: 355491 (83.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_AGGCAGAA_ACTGCATA_lib190910_E3_501T_d42_L001 ...
         Paired-end reads are included.
         Total alignments: 736179
                                                                                    II
## ||
         Successfully assigned alignments: 642994 (87.3%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7055_AGGCAGAA_CGTCTAAT_lib190910_B3_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1638897
                                                                                    | |
## ||
         Successfully assigned alignments: 1350965 (82.4%)
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7055_AGGCAGAA_CTAAGCCT_lib190910_C3_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1562059
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1313033 (84.1%)
                                                                                    II
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7055_AGGCAGAA_CTCTCTAT_lib190910_H3_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 28695
                                                                                    II
## ||
         Successfully assigned alignments: 22313 (77.8%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7055_AGGCAGAA_GTAAGGAG_lib190910_F3_501T_d42_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 339946
                                                                                    II
## ||
         Successfully assigned alignments : 280798 (82.6%)
                                                                                    \prod
## ||
         Running time : 0.02 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_AGGCAGAA_TATCCTCT_lib190910_G3_501T_d42_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 732847
                                                                                    \Pi
         Successfully assigned alignments: 639088 (87.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7055_AGGCAGAA_TCTCTCCG_lib190910_A3_501T_d42_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 597774
         Successfully assigned alignments : 513394 (85.9%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7055_ATCTCAGG_AAGGAGTA_lib190910_D12_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 3856357
                                                                                    II
## ||
         Successfully assigned alignments: 2868323 (74.4%)
                                                                                    | |
## ||
         Running time: 0.21 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_ATCTCAGG_ACTGCATA_lib190910_E12_526W_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 500
         Successfully assigned alignments: 262 (52.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_ATCTCAGG_CGTCTAAT_lib190910_B12_526W_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 5741732
                                                                                    II
## ||
         Successfully assigned alignments: 3877063 (67.5%)
## ||
                                                                                    II
## ||
         Running time : 0.31 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7055_ATCTCAGG_CTAAGCCT_lib190910_C12_526W_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 7340985
## ||
         Successfully assigned alignments: 6373920 (86.8%)
                                                                                    II
## ||
         Running time : 0.38 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7055_ATCTCAGG_CTCTCTAT_lib190910_H12_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 798365
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments : 567724 (71.1%)
                                                                                    II
         Running time : 0.05 minutes
## ||
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7055_ATCTCAGG_GTAAGGAG_lib190910_F12_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 859
                                                                                    II
## ||
         Successfully assigned alignments: 503 (58.6%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7055_ATCTCAGG_TATCCTCT_lib190910_G12_526W_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 230
                                                                                    II
## ||
         Successfully assigned alignments : 12 (5.2%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_ATCTCAGG_TCTCTCCG_lib190910_A12_526W_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 3316710
                                                                                    \Pi
         Successfully assigned alignments: 2253635 (67.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.18 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGAGGCTG_AAGGAGTA_lib190910_D8_526W_d0_L001_ ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 758144
         Successfully assigned alignments : 658342 (86.8%)
## ||
                                                                                    II
                                                                                    II
## ||
         Running time: 0.05 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGAGGCTG_ACTGCATA_lib190910_E8_526W_d0_L001_ ... ||
         Paired-end reads are included.
## ||
## ||
         Total alignments: 355333
                                                                                    \Pi
## ||
         Successfully assigned alignments: 308931 (86.9%)
                                                                                    | | |
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGAGGCTG_CGTCTAAT_lib190910_B8_526W_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                    \prod
## ||
                                                                                    \mathbf{I}
## ||
         Total alignments: 1534910
         Successfully assigned alignments: 1346406 (87.7%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.09 minutes
                                                                                    \mathbf{I}
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGAGGCTG_CTAAGCCT_lib190910_C8_526W_d0_L001_ ... ||
         Paired-end reads are included.
         Total alignments: 1108699
                                                                                    \Pi
## ||
         Successfully assigned alignments: 948223 (85.5%)
                                                                                    \Pi
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \Pi
## || Process BAM file lane7055_CGAGGCTG_CTCTCTAT_lib190910_H8_526W_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1089033
                                                                                    | | |
## ||
         Successfully assigned alignments: 928150 (85.2%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
                                                                                    \Pi
## ||
## || Process BAM file lane7055_CGAGGCTG_GTAAGGAG_lib190910_F8_526W_d0_L001_ ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
                                                                                    \Pi
## ||
         Total alignments: 1116001
## ||
         Successfully assigned alignments: 932500 (83.6%)
                                                                                    \Pi
         Running time : 0.07 minutes
                                                                                    \Pi
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGAGGCTG_TATCCTCT_lib190910_G8_526W_d0_L001_ ... ||
        Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 798518
                                                                                    \Pi
## ||
         Successfully assigned alignments: 661229 (82.8%)
                                                                                    \Pi
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    | | |
## || Process BAM file lane7055_CGAGGCTG_TCTCTCCG_lib190910_A8_526W_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
         Total alignments: 4078362
                                                                                    \Pi
## ||
         Successfully assigned alignments: 3340725 (81.9%)
                                                                                    \Pi
## ||
         Running time : 0.23 minutes
                                                                                    \Pi
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGTACTAG_AAGGAGTA_lib190910_D2_501T_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 274038
                                                                                    \Pi
         Successfully assigned alignments: 230151 (84.0%)
                                                                                    \Pi
## ||
## ||
         Running time : 0.02 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGTACTAG_ACTGCATA_lib190910_E2_501T_d0_L001_ ... ||
## || Paired-end reads are included.
                                                                                    \Pi
```

```
\prod
         Total alignments: 317714
         Successfully assigned alignments : 277665 (87.4%)
## ||
                                                                                    II
         Running time: 0.02 minutes
                                                                                    \Pi
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGTACTAG_CGTCTAAT_lib190910_B2_501T_d0_L001_ ... ||
         Paired-end reads are included.
## ||
         Total alignments: 1260662
                                                                                    \Pi
         Successfully assigned alignments: 1077159 (85.4%)
## ||
                                                                                    \Pi
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGTACTAG_CTAAGCCT_lib190910_C2_501T_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                    \prod
## ||
         Total alignments: 1152821
                                                                                    \mathbf{I}
## ||
         Successfully assigned alignments: 1002309 (86.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    \mathbf{I}
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CGTACTAG_CTCTCTAT_lib190910_H2_501T_d0_L001_ ... ||
         Paired-end reads are included.
         Total alignments: 4625
                                                                                    \Pi
## ||
         Successfully assigned alignments: 3819 (82.6%)
                                                                                    \Pi
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## || Process BAM file lane7055_CGTACTAG_GTAAGGAG_lib190910_F2_501T_d0_L001_ ... ||
         Paired-end reads are included.
## ||
## ||
         Total alignments: 265124
                                                                                    \Pi
## ||
         Successfully assigned alignments: 227313 (85.7%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \Pi
                                                                                    \Pi
## || Process BAM file lane7055_CGTACTAG_TATCCTCT_lib190910_G2_501T_d0_L001_ ... ||
         Paired-end reads are included.
## ||
         Total alignments: 683388
                                                                                    \Pi
## ||
## ||
         Successfully assigned alignments: 585645 (85.7%)
                                                                                    \mathbf{I}
         Running time: 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## ||
## || Process BAM file lane7055_CGTACTAG_TCTCTCCG_lib190910_A2_501T_d0_L001_ ... ||
        Paired-end reads are included.
## ||
## ||
         Total alignments: 149448
                                                                                    \Pi
## ||
         Successfully assigned alignments: 117935 (78.9%)
                                                                                    \Pi
         Running time : 0.01 minutes
## ||
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CTCTCTAC_AAGGAGTA_lib190910_D7_526W_d0_L001_ ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
         Total alignments: 1727473
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1519049 (87.9%)
                                                                                    \Pi
## ||
         Running time : 0.10 minutes
                                                                                    \Pi
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_CTCTCTAC_ACTGCATA_lib190910_E7_526W_d0_L001_ ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
         Total alignments: 969392
                                                                                    \Pi
         Successfully assigned alignments: 834724 (86.1%)
                                                                                    \Pi
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | | |
## || Process BAM file lane7055_CTCTCTAC_CGTCTAAT_lib190910_B7_526W_d0_L001_ ... ||
## || Paired-end reads are included.
                                                                                    \Pi
```

```
\prod
         Total alignments: 3030432
         Successfully assigned alignments : 2579884 (85.1%)
## ||
                                                                                     II
## ||
                                                                                     II
         Running time: 0.17 minutes
## ||
                                                                                     \Pi
## || Process BAM file lane7055_CTCTCTAC_CTAAGCCT_lib190910_C7_526W_d0_L001_ ... ||
         Paired-end reads are included.
## ||
## ||
         Total alignments: 172137
                                                                                     \Pi
## ||
         Successfully assigned alignments: 145921 (84.8%)
                                                                                     | | |
## ||
         Running time: 0.02 minutes
                                                                                     II
## ||
                                                                                     \Pi
## || Process BAM file lane7055_CTCTCTAC_CTCTCTAT_lib190910_H7_526W_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                     | |
## ||
                                                                                     \mathbf{I}
## ||
         Total alignments: 181317
         Successfully assigned alignments: 152399 (84.1%)
## ||
                                                                                     \Pi
## ||
         Running time : 0.01 minutes
                                                                                     \mathbf{I}
## ||
                                                                                     \Pi
## || Process BAM file lane7055_CTCTCTAC_GTAAGGAG_lib190910_F7_526W_d0_L001_ ... ||
         Paired-end reads are included.
         Total alignments : 1724571
                                                                                     \Pi
## ||
         Successfully assigned alignments: 1463659 (84.9%)
                                                                                     \Pi
## ||
## ||
         Running time : 0.10 minutes
                                                                                     \Pi
                                                                                     \Pi
## || Process BAM file lane7055_CTCTCTAC_TATCCTCT_lib190910_G7_526W_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                     II
## ||
## ||
         Total alignments: 1084907
                                                                                     | | |
## ||
         Successfully assigned alignments: 872173 (80.4%)
                                                                                     II
## ||
         Running time : 0.06 minutes
                                                                                     \prod
                                                                                     \prod
## ||
## || Process BAM file lane7055_CTCTCTAC_TCTCTCCG_lib190910_A7_526W_d0_L001_ ... ||
         Paired-end reads are included.
## ||
                                                                                     \Pi
         Total alignments: 125868
## ||
                                                                                     \Pi
## ||
         Successfully assigned alignments: 110391 (87.7%)
                                                                                     \Pi
         Running time : 0.01 minutes
                                                                                     \Pi
## ||
## ||
                                                                                     \Pi
## || Process BAM file lane7055_GCTCATGA_AAGGAGTA_lib190910_D11_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                     \Pi
## ||
         Total alignments: 1564
                                                                                     \Pi
## ||
         Successfully assigned alignments: 1207 (77.2%)
                                                                                     \Pi
## ||
         Running time : 0.00 minutes
                                                                                     II
## ||
                                                                                     | | |
## || Process BAM file lane7055_GCTCATGA_ACTGCATA_lib190910_E11_526W_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                     \Pi
         Total alignments: 106364
                                                                                     II
## ||
         Successfully assigned alignments : 81789 (76.9%)
                                                                                     \Pi
## ||
                                                                                     \prod
## ||
         Running time : 0.01 minutes
## ||
                                                                                     \Pi
## || Process BAM file lane7055_GCTCATGA_CGTCTAAT_lib190910_B11_526W_d42_L00 ... ||
         Paired-end reads are included.
                                                                                     \Pi
## ||
## ||
         Total alignments : 4793787
                                                                                     \Pi
         Successfully assigned alignments: 4128449 (86.1%)
                                                                                     \prod
## ||
## ||
         Running time : 0.26 minutes
                                                                                     \prod
## ||
                                                                                     \Pi
## || Process BAM file lane7055_GCTCATGA_CTAAGCCT_lib190910_C11_526W_d42_L00 ... ||
## || Paired-end reads are included.
                                                                                     \Pi
```

```
\prod
         Total alignments: 7092782
         Successfully assigned alignments : 5680166 (80.1%)
## ||
                                                                                    II
## ||
         Running time: 0.38 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7055_GCTCATGA_CTCTCTAT_lib190910_H11_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 8998
                                                                                    II
## ||
         Successfully assigned alignments: 7048 (78.3%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GCTCATGA_GTAAGGAG_lib190910_F11_526W_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 113006
         Successfully assigned alignments: 84479 (74.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GCTCATGA_TATCCTCT_lib190910_G11_526W_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 609829
                                                                                    II
## ||
         Successfully assigned alignments: 446552 (73.2%)
## ||
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7055_GCTCATGA_TCTCTCCG_lib190910_A11_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1789799
                                                                                    | |
## ||
         Successfully assigned alignments: 1177147 (65.8%)
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7055_GGACTCCT_AAGGAGTA_lib190910_D5_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 504019
                                                                                    \Pi
## ||
         Successfully assigned alignments : 423562 (84.0%)
                                                                                    II
         Running time: 0.03 minutes
## ||
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GGACTCCT_ACTGCATA_lib190910_E5_501T_d42_L001 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 257693
                                                                                    II
## ||
         Successfully assigned alignments: 205439 (79.7%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7055_GGACTCCT_CGTCTAAT_lib190910_B5_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 155698
                                                                                    II
## ||
         Successfully assigned alignments : 128270 (82.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.01 minutes
## ||
                                                                                    | |
## || Process BAM file lane7055_GGACTCCT_CTAAGCCT_lib190910_C5_501T_d42_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 556946
                                                                                    \Pi
         Successfully assigned alignments: 465333 (83.6%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7055_GGACTCCT_CTCTCTAT_lib190910_H5_501T_d42_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 38279
         Successfully assigned alignments : 31181 (81.5%)
## ||
                                                                                    II
         Running time : 0.01 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7055_GGACTCCT_GTAAGGAG_lib190910_F5_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 573144
                                                                                    II
## ||
         Successfully assigned alignments: 467261 (81.5%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GGACTCCT_TATCCTCT_lib190910_G5_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1612920
                                                                                    II
## ||
         Successfully assigned alignments: 1332069 (82.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GGACTCCT_TCTCTCCG_lib190910_A5_501T_d42_L001 ...
         Paired-end reads are included.
         Total alignments: 337896
                                                                                    II
## ||
         Successfully assigned alignments: 285629 (84.5%)
## ||
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7055_GTAGAGGA_AAGGAGTA_lib190910_D10_526W_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2272306
                                                                                    | |
## ||
         Successfully assigned alignments: 1548316 (68.1%)
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7055_GTAGAGGA_ACTGCATA_lib190910_E10_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1823693
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1397606 (76.6%)
                                                                                    II
         Running time : 0.10 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7055_GTAGAGGA_CGTCTAAT_lib190910_B10_526W_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 8226207
                                                                                    II
## ||
         Successfully assigned alignments: 6540501 (79.5%)
                                                                                    II
         Running time: 0.45 minutes
## ||
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7055 GTAGAGGA CTAAGCCT lib190910 C10 526W d42 L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 98
                                                                                    II
## ||
         Successfully assigned alignments: 8 (8.2%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GTAGAGGA_CTCTCTAT_lib190910_H10_526W_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1807632
                                                                                    II
         Successfully assigned alignments: 1380855 (76.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.11 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7055_GTAGAGGA_GTAAGGAG_lib190910_F10_526W_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1882776
         Successfully assigned alignments : 1625881 (86.4%)
## ||
                                                                                    II
## ||
                                                                                    \Pi
         Running time: 0.11 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GTAGAGGA_TATCCTCT_lib190910_G10_526W_d42_L00 ... ||
         Paired-end reads are included.
## ||
## ||
         Total alignments: 70
                                                                                    \Pi
         Successfully assigned alignments : 6 (8.6%)
## ||
                                                                                    \Pi
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_GTAGAGGA_TCTCTCCG_lib190910_A10_526W_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 162268
                                                                                    II
## ||
         Successfully assigned alignments: 135504 (83.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.01 minutes
                                                                                    \mathbf{I}
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TAAGGCGA_AAGGAGTA_lib190910_D1_501T_d0_L001_ ... ||
         Paired-end reads are included.
         Total alignments : 1019518
                                                                                    \Pi
## ||
         Successfully assigned alignments: 877079 (86.0%)
                                                                                    \Pi
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
                                                                                    \Pi
## || Process BAM file lane7055_TAAGGCGA_ACTGCATA_lib190910_E1_501T_d0_L001_ ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 408736
                                                                                    \Pi
## ||
         Successfully assigned alignments: 357619 (87.5%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7055_TAAGGCGA_CGTCTAAT_lib190910_B1_501T_d0_L001_ ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 314707
                                                                                    \prod
## ||
## ||
         Successfully assigned alignments: 242203 (77.0%)
                                                                                    \Pi
         Running time: 0.02 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## ||
## || Process BAM file lane7055_TAAGGCGA_CTAAGCCT_lib190910_C1_501T_d0_L001_ ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 378173
                                                                                    \Pi
## ||
         Successfully assigned alignments: 305790 (80.9%)
                                                                                    \Pi
         Running time : 0.02 minutes
## ||
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TAAGGCGA_CTCTCTAT_lib190910_H1_501T_d0_L001_ ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
         Total alignments: 53830
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 47393 (88.0%)
                                                                                    \Pi
         Running time : 0.01 minutes
                                                                                    \Pi
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TAAGGCGA_GTAAGGAG_lib190910_F1_501T_d0_L001_ ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
         Total alignments : 514590
                                                                                    \Pi
         Successfully assigned alignments: 456422 (88.7%)
                                                                                    \Pi
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \Pi
## ||
                                                                                    | | |
## || Process BAM file lane7055_TAAGGCGA_TATCCTCT_lib190910_G1_501T_d0_L001_ ... ||
## || Paired-end reads are included.
                                                                                    \Pi
```

```
\prod
         Total alignments: 34210
         Successfully assigned alignments : 29214 (85.4%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7055_TAAGGCGA_TCTCTCCG_lib190910_A1_501T_d0_L001_ ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 44796
                                                                                    II
         Successfully assigned alignments: 38941 (86.9%)
## ||
                                                                                    | |
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TAGGCATG_AAGGAGTA_lib190910_D6_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 649246
                                                                                    II
## ||
         Successfully assigned alignments: 519621 (80.0%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TAGGCATG_ACTGCATA_lib190910_E6_501T_d42_L001 ... ||
         Paired-end reads are included.
         Total alignments: 334592
                                                                                    II
## ||
         Successfully assigned alignments: 274021 (81.9%)
                                                                                    II
## ||
## ||
         Running time: 0.03 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7055_TAGGCATG_CGTCTAAT_lib190910_B6_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 200282
                                                                                    | |
## ||
         Successfully assigned alignments: 171536 (85.6%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7055_TAGGCATG_CTAAGCCT_lib190910_C6_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 504698
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 408632 (81.0%)
                                                                                    II
         Running time : 0.03 minutes
                                                                                    \prod
## ||
                                                                                    II
## ||
## || Process BAM file lane7055_TAGGCATG_CTCTCTAT_lib190910_H6_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 6826
                                                                                    \Pi
## ||
         Successfully assigned alignments : 5419 (79.4%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7055_TAGGCATG_GTAAGGAG_lib190910_F6_501T_d42_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 616879
                                                                                    II
## ||
## ||
         Successfully assigned alignments : 514673 (83.4%)
                                                                                    \prod
         Running time: 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TAGGCATG_TATCCTCT_lib190910_G6_501T_d42_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 199333
                                                                                    II
         Successfully assigned alignments: 168298 (84.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.02 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7055_TAGGCATG_TCTCTCCG_lib190910_A6_501T_d42_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 329949
         Successfully assigned alignments : 272668 (82.6%)
## ||
                                                                                    II
         Running time: 0.02 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane7055_TCCTGAGC_AAGGAGTA_lib190910_D4_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 390618
                                                                                    II
## ||
         Successfully assigned alignments: 329839 (84.4%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TCCTGAGC_ACTGCATA_lib190910_E4_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 700293
                                                                                    II
## ||
         Successfully assigned alignments: 546295 (78.0%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TCCTGAGC_CGTCTAAT_lib190910_B4_501T_d42_L001 ...
         Paired-end reads are included.
         Total alignments: 316061
                                                                                    II
## ||
         Successfully assigned alignments: 243737 (77.1%)
## ||
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7055_TCCTGAGC_CTAAGCCT_lib190910_C4_501T_d42_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 719473
                                                                                    | |
## ||
         Successfully assigned alignments: 601561 (83.6%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7055_TCCTGAGC_CTCTCTAT_lib190910_H4_501T_d42_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 505349
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 436079 (86.3%)
                                                                                    II
         Running time: 0.03 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7055_TCCTGAGC_GTAAGGAG_lib190910_F4_501T_d42_L001 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1405889
                                                                                    II
## ||
         Successfully assigned alignments: 1196908 (85.1%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7055_TCCTGAGC_TATCCTCT_lib190910_G4_501T_d42_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1004922
                                                                                    II
## ||
         Successfully assigned alignments: 821340 (81.7%)
                                                                                    \prod
## ||
         Running time: 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7055_TCCTGAGC_TCTCTCCG_lib190910_A4_501T_d42_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 699488
                                                                                    \Pi
         Successfully assigned alignments: 595161 (85.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7052_AAGAGGCA_AAGGAGTA_cDNA190916_D9_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2747380
         Successfully assigned alignments : 2351472 (85.6%)
## ||
                                                                                    II
                                                                                    II
## ||
         Running time: 0.16 minutes
## ||
                                                                                    II
## || Process BAM file lane7052_AAGAGGCA_ACTGCATA_cDNA190916_E9_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 950551
                                                                                    II
## ||
         Successfully assigned alignments: 679528 (71.5%)
                                                                                    | |
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_AAGAGGCA_CGTCTAAT_cDNA190916_B9_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 2422
                                                                                    II
## ||
         Successfully assigned alignments: 394 (16.3%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_AAGAGGCA_CTAAGCCT_cDNA190916_C9_665X_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1389143
                                                                                    II
## ||
         Successfully assigned alignments: 1171859 (84.4%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_AAGAGGCA_CTCTCTAT_cDNA190916_H9_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 9844
                                                                                    | |
## ||
         Successfully assigned alignments: 7663 (77.8%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7052_AAGAGGCA_GTAAGGAG_cDNA190916_F9_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1499245
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1203616 (80.3%)
                                                                                    II
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7052_AAGAGGCA_TATCCTCT_cDNA190916_G9_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 3047837
                                                                                    II
## ||
         Successfully assigned alignments: 2636584 (86.5%)
                                                                                    II
## ||
         Running time: 0.17 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_AAGAGGCA_TCTCTCCCG_cDNA190916_A9_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 3540739
                                                                                    II
## ||
         Successfully assigned alignments : 2654087 (75.0%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.19 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7052_AGGCAGAA_AAGGAGTA_cDNA190916_D3_665X_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 869393
                                                                                    II
         Successfully assigned alignments: 726224 (83.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7052_AGGCAGAA_ACTGCATA_cDNA190916_E3_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 539006
         Successfully assigned alignments : 404806 (75.1%)
## ||
                                                                                    II
         Running time : 0.03 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_AGGCAGAA_CGTCTAAT_cDNA190916_B3_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1141
                                                                                    II
## ||
         Successfully assigned alignments: 62 (5.4%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_AGGCAGAA_CTAAGCCT_cDNA190916_C3_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1059972
                                                                                    II
## ||
         Successfully assigned alignments: 915423 (86.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_AGGCAGAA_CTCTCTAT_cDNA190916_H3_665X_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 63678
                                                                                    II
## ||
         Successfully assigned alignments: 51097 (80.2%)
## ||
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_AGGCAGAA_GTAAGGAG_cDNA190916_F3_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 120361
                                                                                    | |
## ||
         Successfully assigned alignments: 91524 (76.0%)
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7052_AGGCAGAA_TATCCTCT_cDNA190916_G3_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1850474
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1453607 (78.6%)
                                                                                    II
         Running time : 0.11 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7052_AGGCAGAA_TCTCTCCG_cDNA190916_A3_652H_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1278
                                                                                    \Pi
## ||
         Successfully assigned alignments: 69 (5.4%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_ATCTCAGG_AAGGAGTA_cDNA190916_D12_665X_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 6783221
                                                                                    II
## ||
         Successfully assigned alignments : 5128765 (75.6%)
                                                                                    \prod
## ||
         Running time : 0.37 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052_ATCTCAGG_ACTGCATA_cDNA190916_E12_665X_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 7340222
                                                                                    II
         Successfully assigned alignments: 6235571 (85.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.39 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7052_ATCTCAGG_CGTCTAAT_cDNA190916_B12_665X_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 5297917
         Successfully assigned alignments : 3780083 (71.4%)
## ||
                                                                                    II
## ||
         Running time: 0.27 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_ATCTCAGG_CTAAGCCT_cDNA190916_C12_665X_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 6150
                                                                                    II
## ||
         Successfully assigned alignments: 275 (4.5%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_ATCTCAGG_CTCTCTAT_cDNA190916_H12_665X_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
## ||
         Total alignments: 4779929
                                                                                    II
         Successfully assigned alignments: 4102831 (85.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.27 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_ATCTCAGG_GTAAGGAG_cDNA190916_F12_665X_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 2510557
                                                                                    II
## ||
         Successfully assigned alignments: 1946506 (77.5%)
## ||
                                                                                    II
## ||
         Running time: 0.14 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_ATCTCAGG_TATCCTCT_cDNA190916_G12_665X_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 4444490
                                                                                    | |
## ||
         Successfully assigned alignments: 3669504 (82.6%)
                                                                                    II
## ||
         Running time : 0.23 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane7052_ATCTCAGG_TCTCTCCG_cDNA190916_A12_665X_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 17688
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 713 (4.0%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7052 CGAGGCTG AAGGAGTA cDNA190916 D8 665X d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 361
                                                                                    \Pi
## ||
         Successfully assigned alignments: 26 (7.2%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7052_CGAGGCTG_ACTGCATA_cDNA190916_E8_665X_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 332
                                                                                    II
## ||
         Successfully assigned alignments : 23 (6.9%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CGAGGCTG_CGTCTAAT_cDNA190916_B8_665X_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 640
                                                                                    \Pi
         Successfully assigned alignments: 44 (6.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7052_CGAGGCTG_CTAAGCCT_cDNA190916_C8_665X_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 969
         Successfully assigned alignments : 60 (6.2%)
## ||
                                                                                    II
         Running time : 0.00 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_CGAGGCTG_CTCTCTAT_cDNA190916_H8_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 816
                                                                                    II
## ||
         Successfully assigned alignments: 32 (3.9%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CGAGGCTG_GTAAGGAG_cDNA190916_F8_665X_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 313
                                                                                    II
## ||
         Successfully assigned alignments: 20 (6.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CGAGGCTG_TATCCTCT_cDNA190916_G8_665X_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 425
                                                                                    II
## ||
         Successfully assigned alignments: 34 (8.0%)
                                                                                    II
## ||
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_CGAGGCTG_TCTCTCCG_cDNA190916_A8_665X_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2643
                                                                                    | |
## ||
         Successfully assigned alignments: 149 (5.6%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7052_CGTACTAG_AAGGAGTA_cDNA190916_D2_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 22563
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 17747 (78.7%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7052_CGTACTAG_ACTGCATA_cDNA190916_E2_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 18019
                                                                                    II
## ||
         Successfully assigned alignments: 10444 (58.0%)
                                                                                    II
         Running time : 0.00 minutes
## ||
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7052_CGTACTAG_CGTCTAAT_cDNA190916_B2_652H_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 22123
                                                                                    II
## ||
         Successfully assigned alignments: 14819 (67.0%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CGTACTAG_CTAAGCCT_cDNA190916_C2_665X_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 4374
                                                                                    II
         Successfully assigned alignments: 2538 (58.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7052_CGTACTAG_CTCTCTAT_cDNA190916_H2_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 664
         Successfully assigned alignments : 29 (4.4%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_CGTACTAG_GTAAGGAG_cDNA190916_F2_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 515
                                                                                    II
## ||
         Successfully assigned alignments: 100 (19.4%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CGTACTAG_TATCCTCT_cDNA190916_G2_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 40324
         Successfully assigned alignments: 33114 (82.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CGTACTAG_TCTCTCCG_cDNA190916_A2_652H_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 1241
                                                                                    II
## ||
         Successfully assigned alignments: 127 (10.2%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_CTCTCTAC_AAGGAGTA_cDNA190916_D7_665X_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 428
                                                                                    | |
## ||
         Successfully assigned alignments: 29 (6.8%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7052_CTCTCTAC_ACTGCATA_cDNA190916_E7_665X_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 467
                                                                                    \Pi
## ||
         Successfully assigned alignments: 43 (9.2%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7052 CTCTCTAC CGTCTAAT cDNA190916 B7 665X d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1672
                                                                                    \Pi
## ||
         Successfully assigned alignments: 90 (5.4%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7052_CTCTCTAC_CTAAGCCT_cDNA190916_C7_665X_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 680
                                                                                    II
## ||
         Successfully assigned alignments: 28 (4.1%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CTCTCTAC_CTCTCTAT_cDNA190916_H7_665X_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 4392
                                                                                    \Pi
         Successfully assigned alignments: 197 (4.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7052_CTCTCTAC_GTAAGGAG_cDNA190916_F7_665X_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 438
         Successfully assigned alignments : 35 (8.0%)
## ||
                                                                                    II
         Running time : 0.00 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_CTCTCTAC_TATCCTCT_cDNA190916_G7_665X_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 622
                                                                                    II
## ||
         Successfully assigned alignments: 36 (5.8%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_CTCTCTAC_TCTCTCCG_cDNA190916_A7_665X_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2329
                                                                                    II
## ||
         Successfully assigned alignments: 107 (4.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GCTCATGA_AAGGAGTA_cDNA190916_D11_665X_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 485134
                                                                                    II
## ||
         Successfully assigned alignments: 393771 (81.2%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_GCTCATGA_ACTGCATA_cDNA190916_E11_665X_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 3312550
                                                                                    | |
## ||
         Successfully assigned alignments: 2464881 (74.4%)
                                                                                    II
## ||
         Running time : 0.18 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7052_GCTCATGA_CGTCTAAT_cDNA190916_B11_665X_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 7829
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 373 (4.8%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7052 GCTCATGA CTAAGCCT cDNA190916 C11 665X d42 L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 250889
                                                                                    II
## ||
         Successfully assigned alignments: 201286 (80.2%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_GCTCATGA_CTCTCTAT_cDNA190916_H11_665X_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 24197
                                                                                    II
## ||
         Successfully assigned alignments : 19582 (80.9%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GCTCATGA_GTAAGGAG_cDNA190916_F11_665X_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 291832
                                                                                    II
         Successfully assigned alignments: 247582 (84.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.02 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7052_GCTCATGA_TATCCTCT_cDNA190916_G11_665X_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1846686
## ||
         Successfully assigned alignments: 435754 (23.6%)
                                                                                    II
## ||
         Running time: 0.10 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_GCTCATGA_TCTCTCCG_cDNA190916_A11_665X_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 7355
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 324 (4.4%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GGACTCCT_AAGGAGTA_cDNA190916_D5_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 472
         Successfully assigned alignments: 131 (27.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GGACTCCT_ACTGCATA_cDNA190916_E5_665X_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 619362
                                                                                    II
## ||
         Successfully assigned alignments: 408315 (65.9%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_GGACTCCT_CGTCTAAT_cDNA190916_B5_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 1525
## ||
         Successfully assigned alignments: 471 (30.9%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7052_GGACTCCT_CTAAGCCT_cDNA190916_C5_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 484498
                                                                                    \Pi
## ||
         Successfully assigned alignments: 422177 (87.1%)
                                                                                    II
         Running time: 0.03 minutes
## ||
                                                                                    \Pi
## ||
                                                                                    11
## || Process BAM file lane7052_GGACTCCT_CTCTCTAT_cDNA190916_H5_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2733194
                                                                                    II
## ||
         Successfully assigned alignments: 2310233 (84.5%)
                                                                                    II
## ||
         Running time: 0.15 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7052_GGACTCCT_GTAAGGAG_cDNA190916_F5_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 54927
                                                                                    II
## ||
         Successfully assigned alignments: 43502 (79.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.01 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GGACTCCT_TATCCTCT_cDNA190916_G5_665X_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 246548
                                                                                    II
         Successfully assigned alignments: 190278 (77.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.02 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7052_GGACTCCT_TCTCTCCCG_cDNA190916_A5_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 736
         Successfully assigned alignments : 169 (23.0%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_GTAGAGGA_AAGGAGTA_cDNA190916_D10_665X_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1980234
                                                                                    II
         Successfully assigned alignments : 1637826 (82.7%)
## ||
                                                                                    | |
## ||
         Running time: 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GTAGAGGA_ACTGCATA_cDNA190916_E10_665X_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1828571
                                                                                    II
## ||
         Successfully assigned alignments: 1460007 (79.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GTAGAGGA_CGTCTAAT_cDNA190916_B10_665X_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 9243528
                                                                                    II
## ||
         Successfully assigned alignments: 8131109 (88.0%)
## ||
                                                                                    II
## ||
         Running time: 0.50 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_GTAGAGGA_CTAAGCCT_cDNA190916_C10_665X_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 4558707
                                                                                    | |
## ||
         Successfully assigned alignments: 3640918 (79.9%)
                                                                                    II
## ||
         Running time : 0.25 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7052_GTAGAGGA_CTCTCTAT_cDNA190916_H10_665X_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 5614
                                                                                    \Pi
## ||
         Successfully assigned alignments: 3097 (55.2%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052 GTAGAGGA GTAAGGAG cDNA190916 F10 665X d42 L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 3812741
                                                                                    II
## ||
         Successfully assigned alignments: 3324062 (87.2%)
                                                                                    II
## ||
         Running time : 0.21 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7052_GTAGAGGA_TATCCTCT_cDNA190916_G10_665X_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 4942992
                                                                                    II
## ||
         Successfully assigned alignments: 4316221 (87.3%)
                                                                                    \prod
## ||
         Running time : 0.27 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052_GTAGAGGA_TCTCTCCG_cDNA190916_A10_665X_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 4643971
                                                                                    II
         Successfully assigned alignments: 3705119 (79.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.26 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7052_TAAGGCGA_AAGGAGTA_cDNA190916_D1_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1394788
         Successfully assigned alignments : 1215748 (87.2%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_TAAGGCGA_ACTGCATA_cDNA190916_E1_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 11971
                                                                                    II
## ||
         Successfully assigned alignments: 9199 (76.8%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TAAGGCGA_CGTCTAAT_cDNA190916_B1_652H_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 892450
         Successfully assigned alignments: 791499 (88.7%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TAAGGCGA_CTAAGCCT_cDNA190916_C1_665X_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 5406
                                                                                    II
## ||
         Successfully assigned alignments: 3385 (62.6%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_TAAGGCGA_CTCTCTAT_cDNA190916_H1_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 2089
                                                                                    | |
## ||
         Successfully assigned alignments: 311 (14.9%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7052_TAAGGCGA_GTAAGGAG_cDNA190916_F1_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 6055
                                                                                    \Pi
## ||
         Successfully assigned alignments: 4813 (79.5%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7052_TAAGGCGA_TATCCTCT_cDNA190916_G1_665X_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 963
                                                                                    II
## ||
         Successfully assigned alignments: 137 (14.2%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7052_TAAGGCGA_TCTCTCCG_cDNA190916_A1_652H_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 792983
                                                                                    II
## ||
         Successfully assigned alignments : 686166 (86.5%)
                                                                                    \prod
## ||
         Running time : 0.05 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TAGGCATG_AAGGAGTA_cDNA190916_D6_665X_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 565317
                                                                                    II
         Successfully assigned alignments: 446385 (79.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7052_TAGGCATG_ACTGCATA_cDNA190916_E6_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2451937
         Successfully assigned alignments : 2111063 (86.1%)
## ||
                                                                                    II
## ||
         Running time: 0.14 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_TAGGCATG_CGTCTAAT_cDNA190916_B6_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 4743
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 2748 (57.9%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TAGGCATG_CTAAGCCT_cDNA190916_C6_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 691
         Successfully assigned alignments: 40 (5.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TAGGCATG_CTCTCTAT_cDNA190916_H6_665X_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 2216525
                                                                                    II
## ||
         Successfully assigned alignments: 1917187 (86.5%)
## ||
                                                                                    II
## ||
         Running time : 0.12 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_TAGGCATG_GTAAGGAG_cDNA190916_F6_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 717751
## ||
         Successfully assigned alignments: 487779 (68.0%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7052_TAGGCATG_TATCCTCT_cDNA190916_G6_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 251587
                                                                                    \Pi
## ||
         Successfully assigned alignments: 191543 (76.1%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \Pi
## ||
                                                                                    11
## || Process BAM file lane7052_TAGGCATG_TCTCTCCG_cDNA190916_A6_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 3009981
                                                                                    II
## ||
         Successfully assigned alignments: 2643007 (87.8%)
                                                                                    II
## ||
         Running time : 0.17 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7052_TCCTGAGC_AAGGAGTA_cDNA190916_D4_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 331524
                                                                                    II
## ||
         Successfully assigned alignments : 292469 (88.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.02 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TCCTGAGC_ACTGCATA_cDNA190916_E4_665X_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 963906
                                                                                    II
         Successfully assigned alignments: 826451 (85.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7052_TCCTGAGC_CGTCTAAT_cDNA190916_B4_665X_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 725
         Successfully assigned alignments : 39 (5.4%)
## ||
                                                                                    II
         Running time : 0.00 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7052_TCCTGAGC_CTAAGCCT_cDNA190916_C4_665X_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 5349
                                                                                    II
         Successfully assigned alignments: 3438 (64.3%)
## ||
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TCCTGAGC_CTCTCTAT_cDNA190916_H4_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 626
                                                                                    II
## ||
         Successfully assigned alignments: 41 (6.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7052_TCCTGAGC_GTAAGGAG_cDNA190916_F4_665X_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1198697
                                                                                    II
## ||
         Successfully assigned alignments: 1008812 (84.2%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7052_TCCTGAGC_TATCCTCT_cDNA190916_G4_665X_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 96545
                                                                                    | |
## ||
         Successfully assigned alignments: 72657 (75.3%)
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7052_TCCTGAGC_TCTCTCCG_cDNA190916_A4_652H_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 587627
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 480791 (81.8%)
                                                                                    II
         Running time: 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023 AAGAGGCA AAGGAGTA cDNA190917 D9 627F d42 L00 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 168491
                                                                                    II
## ||
         Successfully assigned alignments: 126018 (74.8%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_AAGAGGCA_ACTGCATA_cDNA190917_E9_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 148995
                                                                                    II
## ||
         Successfully assigned alignments: 115745 (77.7%)
                                                                                    \prod
## ||
         Running time : 0.02 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7023_AAGAGGCA_CGTCTAAT_cDNA190917_B9_643Y_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 3170
                                                                                    II
         Successfully assigned alignments: 2068 (65.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7023_AAGAGGCA_CTAAGCCT_cDNA190917_C9_643Y_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1202
         Successfully assigned alignments : 826 (68.7%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_AAGAGGCA_CTCTCTAT_cDNA190917_H9_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 967998
                                                                                    II
## ||
         Successfully assigned alignments: 820968 (84.8%)
                                                                                    | |
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_AAGAGGCA_GTAAGGAG_cDNA190917_F9_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 935358
         Successfully assigned alignments: 746494 (79.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_AAGAGGCA_TATCCTCT_cDNA190917_G9_627F_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 381512
                                                                                    II
## ||
         Successfully assigned alignments: 310933 (81.5%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_AAGAGGCA_TCTCTCCG_cDNA190917_A9_643Y_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 17542
## ||
         Successfully assigned alignments: 12153 (69.3%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7023_AGGCAGAA_AAGGAGTA_cDNA190917_D3_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1536820
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1334351 (86.8%)
                                                                                    II
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023_AGGCAGAA_ACTGCATA_cDNA190917_E3_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 163228
                                                                                    II
## ||
         Successfully assigned alignments: 138978 (85.1%)
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7023_AGGCAGAA_CGTCTAAT_cDNA190917_B3_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 130161
                                                                                    II
## ||
         Successfully assigned alignments : 103438 (79.5%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.01 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_AGGCAGAA_CTAAGCCT_cDNA190917_C3_627F_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1296830
                                                                                    \Pi
         Successfully assigned alignments: 1127054 (86.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.08 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7023_AGGCAGAA_CTCTCTAT_cDNA190917_H3_627F_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 307
         Successfully assigned alignments : 144 (46.9%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_AGGCAGAA_GTAAGGAG_cDNA190917_F3_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 925084
                                                                                    II
         Successfully assigned alignments: 797219 (86.2%)
## ||
                                                                                    | |
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_AGGCAGAA_TATCCTCT_cDNA190917_G3_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1103710
         Successfully assigned alignments: 931431 (84.4%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_AGGCAGAA_TCTCTCCG_cDNA190917_A3_627F_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 160690
                                                                                    II
## ||
         Successfully assigned alignments: 126502 (78.7%)
## ||
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_ATCTCAGG_AAGGAGTA_cDNA190917_D12_643Y_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 553356
## ||
         Successfully assigned alignments: 429161 (77.6%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7023_ATCTCAGG_ACTGCATA_cDNA190917_E12_627F_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 216
                                                                                    \Pi
## ||
         Successfully assigned alignments: 24 (11.1%)
                                                                                    II
                                                                                    \prod
## ||
         Running time : 0.00 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_ATCTCAGG_CGTCTAAT_cDNA190917_B12_643Y_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 4747087
                                                                                    II
## ||
         Successfully assigned alignments: 3840768 (80.9%)
                                                                                    II
## ||
         Running time: 0.26 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7023_ATCTCAGG_CTAAGCCT_cDNA190917_C12_643Y_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2624645
                                                                                    II
## ||
         Successfully assigned alignments : 1973670 (75.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.14 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_ATCTCAGG_CTCTCTAT_cDNA190917_H12_594V_d0_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 244655
                                                                                    \Pi
         Successfully assigned alignments: 201845 (82.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.02 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7023_ATCTCAGG_GTAAGGAG_cDNA190917_F12_627F_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 781994
         Successfully assigned alignments : 601723 (76.9%)
## ||
                                                                                    II
         Running time : 0.05 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane7023_ATCTCAGG_TATCCTCT_cDNA190917_G12_627F_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 43254
                                                                                    II
         Successfully assigned alignments : 33427 (77.3%)
## ||
                                                                                    | |
## ||
         Running time: 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_ATCTCAGG_TCTCTCCG_cDNA190917_A12_643Y_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 8719646
                                                                                    II
## ||
         Successfully assigned alignments: 7399705 (84.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.47 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CGAGGCTG_AAGGAGTA_cDNA190917_D8_643Y_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 79
                                                                                    II
## ||
         Successfully assigned alignments: 12 (15.2%)
                                                                                    II
## ||
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_CGAGGCTG_ACTGCATA_cDNA190917_E8_594V_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 1260165
                                                                                    | |
## ||
         Successfully assigned alignments: 990551 (78.6%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7023_CGAGGCTG_CGTCTAAT_cDNA190917_B8_643Y_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 14029
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 11188 (79.7%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023_CGAGGCTG_CTAAGCCT_cDNA190917_C8_643Y_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 35764
                                                                                    \Pi
## ||
         Successfully assigned alignments: 30075 (84.1%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_CGAGGCTG_CTCTCTAT_cDNA190917_H8_594V_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1121988
                                                                                    II
## ||
         Successfully assigned alignments : 955622 (85.2%)
                                                                                    \prod
## ||
         Running time: 0.07 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CGAGGCTG_GTAAGGAG_cDNA190917_F8_594V_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 897476
                                                                                    II
         Successfully assigned alignments: 752152 (83.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7023_CGAGGCTG_TATCCTCT_cDNA190917_G8_594V_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 3293158
         Successfully assigned alignments : 2821777 (85.7%)
## ||
                                                                                    II
## ||
         Running time: 0.19 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_CGAGGCTG_TCTCTCCG_cDNA190917_A8_643Y_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 48958
                                                                                    II
## ||
         Successfully assigned alignments: 39514 (80.7%)
                                                                                    | |
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CGTACTAG_AAGGAGTA_cDNA190917_D2_627F_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1247089
         Successfully assigned alignments: 1029942 (82.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CGTACTAG_ACTGCATA_cDNA190917_E2_627F_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 28080
                                                                                    II
## ||
         Successfully assigned alignments: 22124 (78.8%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_CGTACTAG_CGTCTAAT_cDNA190917_B2_627F_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 327123
## ||
         Successfully assigned alignments: 260728 (79.7%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7023_CGTACTAG_CTAAGCCT_cDNA190917_C2_627F_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 34769
                                                                                    \Pi
## ||
         Successfully assigned alignments: 28110 (80.8%)
                                                                                    II
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023_CGTACTAG_CTCTCTAT_cDNA190917_H2_627F_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1288
                                                                                    II
## ||
         Successfully assigned alignments: 837 (65.0%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7023_CGTACTAG_GTAAGGAG_cDNA190917_F2_627F_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 924488
                                                                                    II
## ||
         Successfully assigned alignments: 770956 (83.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.05 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CGTACTAG_TATCCTCT_cDNA190917_G2_627F_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 405091
                                                                                    \Pi
         Successfully assigned alignments: 338357 (83.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.02 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7023_CGTACTAG_TCTCTCCG_cDNA190917_A2_627F_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 462534
         Successfully assigned alignments : 374058 (80.9\%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_CTCTCTAC_AAGGAGTA_cDNA190917_D7_643Y_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 84
                                                                                    II
## ||
         Successfully assigned alignments: 5 (6.0%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CTCTCTAC_ACTGCATA_cDNA190917_E7_594V_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 510743
         Successfully assigned alignments: 432187 (84.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CTCTCTAC_CGTCTAAT_cDNA190917_B7_643Y_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 5899
                                                                                    II
## ||
         Successfully assigned alignments: 4782 (81.1%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_CTCTCTAC_CTAAGCCT_cDNA190917_C7_643Y_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 8399
## ||
         Successfully assigned alignments: 6423 (76.5%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7023_CTCTCTAC_CTCTCTAT_cDNA190917_H7_594V_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1585750
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1142110 (72.0%)
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7023_CTCTCTAC_GTAAGGAG_cDNA190917_F7_594V_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1915510
                                                                                    II
## ||
         Successfully assigned alignments: 1634761 (85.3%)
                                                                                    II
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7023_CTCTCTAC_TATCCTCT_cDNA190917_G7_594V_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1338613
                                                                                    II
## ||
         Successfully assigned alignments : 1087276 (81.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.08 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_CTCTCTAC_TCTCTCCG_cDNA190917_A7_643Y_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 104872
                                                                                    \Pi
         Successfully assigned alignments: 85421 (81.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.01 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7023_GCTCATGA_AAGGAGTA_cDNA190917_D11_627F_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 63
         Successfully assigned alignments : 4 (6.3%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_GCTCATGA_ACTGCATA_cDNA190917_E11_627F_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 123
                                                                                    \Pi
## ||
         Successfully assigned alignments: 10 (8.1%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GCTCATGA_CGTCTAAT_cDNA190917_B11_643Y_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 3483030
         Successfully assigned alignments: 2779497 (79.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.19 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GCTCATGA_CTAAGCCT_cDNA190917_C11_643Y_d42_L0 ...
         Paired-end reads are included.
         Total alignments : 17721
                                                                                    II
## ||
         Successfully assigned alignments: 730 (4.1%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    \Pi
## || Process BAM file lane7023_GCTCATGA_CTCTCTAT_cDNA190917_H11_594V_d0_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 40626
                                                                                    | |
## ||
         Successfully assigned alignments: 35013 (86.2%)
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7023_GCTCATGA_GTAAGGAG_cDNA190917_F11_627F_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1026007
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 781724 (76.2%)
                                                                                    II
         Running time: 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023_GCTCATGA_TATCCTCT_cDNA190917_G11_627F_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1798820
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1501975 (83.5%)
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7023_GCTCATGA_TCTCTCCG_cDNA190917_A11_643Y_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 25760
                                                                                    II
## ||
         Successfully assigned alignments : 20720 (80.4%)
                                                                                    \prod
## ||
         Running time : 0.00 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GGACTCCT_AAGGAGTA_cDNA190917_D5_627F_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 386467
                                                                                    \Pi
         Successfully assigned alignments: 325072 (84.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GGACTCCT_ACTGCATA_cDNA190917_E5_627F_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1997903
         Successfully assigned alignments : 1744034 (87.3%)
## ||
                                                                                    II
## ||
         Running time: 0.12 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_GGACTCCT_CGTCTAAT_cDNA190917_B5_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 245909
                                                                                    II
## ||
         Successfully assigned alignments: 186089 (75.7%)
                                                                                    | |
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GGACTCCT_CTAAGCCT_cDNA190917_C5_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1405
                                                                                    II
## ||
         Successfully assigned alignments: 1111 (79.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GGACTCCT_CTCTCTAT_cDNA190917_H5_627F_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 394017
                                                                                    II
## ||
         Successfully assigned alignments: 315970 (80.2%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_GGACTCCT_GTAAGGAG_cDNA190917_F5_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 433383
                                                                                    | |
## ||
         Successfully assigned alignments: 372962 (86.1%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7023_GGACTCCT_TATCCTCT_cDNA190917_G5_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2049432
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1725840 (84.2%)
                                                                                    II
         Running time: 0.12 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023_GGACTCCT_TCTCTCCG_cDNA190917_A5_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 19499
                                                                                    \Pi
## ||
         Successfully assigned alignments: 15774 (80.9%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_GTAGAGGA_AAGGAGTA_cDNA190917_D10_627F_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2408038
                                                                                    II
## ||
         Successfully assigned alignments : 1796261 (74.6%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.13 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GTAGAGGA_ACTGCATA_cDNA190917_E10_627F_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 9811
                                                                                    II
         Successfully assigned alignments: 7470 (76.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7023_GTAGAGGA_CGTCTAAT_cDNA190917_B10_643Y_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 612338
         Successfully assigned alignments : 460233 (75.2%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_GTAGAGGA_CTAAGCCT_cDNA190917_C10_643Y_d42_L0 ...
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 590543
                                                                                    II
## ||
         Successfully assigned alignments: 461214 (78.1%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GTAGAGGA_CTCTCTAT_cDNA190917_H10_594V_d0_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 2409815
         Successfully assigned alignments: 2083394 (86.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.13 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_GTAGAGGA_GTAAGGAG_cDNA190917_F10_627F_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 633983
                                                                                    II
## ||
         Successfully assigned alignments: 492397 (77.7%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_GTAGAGGA_TATCCTCT_cDNA190917_G10_627F_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 819852
                                                                                    | |
## ||
         Successfully assigned alignments: 621808 (75.8%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7023_GTAGAGGA_TCTCTCCG_cDNA190917_A10_643Y_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 4391943
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 3450579 (78.6%)
                                                                                    II
         Running time: 0.24 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023 TAAGGCGA AAGGAGTA cDNA190917 D1 627F d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1497404
                                                                                    II
## ||
         Successfully assigned alignments: 1252783 (83.7%)
                                                                                    II
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7023_TAAGGCGA_ACTGCATA_cDNA190917_E1_627F_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 89763
                                                                                    II
## ||
         Successfully assigned alignments : 75282 (83.9%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.01 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TAAGGCGA_CGTCTAAT_cDNA190917_B1_627F_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 3120537
                                                                                    \Pi
         Successfully assigned alignments: 2680252 (85.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.17 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7023_TAAGGCGA_CTAAGCCT_cDNA190917_C1_627F_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 636057
         Successfully assigned alignments : 538686 (84.7%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_TAAGGCGA_CTCTCTAT_cDNA190917_H1_627F_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 2369
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 1898 (80.1%)
                                                                                    | |
## ||
         Running time : 0.00 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TAAGGCGA_GTAAGGAG_cDNA190917_F1_627F_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1296164
         Successfully assigned alignments: 1162115 (89.7%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TAAGGCGA_TATCCTCT_cDNA190917_G1_627F_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 578728
                                                                                    II
## ||
         Successfully assigned alignments: 502180 (86.8%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_TAAGGCGA_TCTCTCCG_cDNA190917_A1_627F_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 2259
## ||
         Successfully assigned alignments: 1487 (65.8%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7023_TAGGCATG_AAGGAGTA_cDNA190917_D6_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 2106816
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1811802 (86.0%)
                                                                                    II
## ||
         Running time: 0.12 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7023 TAGGCATG ACTGCATA cDNA190917 E6 627F d42 L00 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 329373
                                                                                    II
## ||
         Successfully assigned alignments: 258884 (78.6%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7023_TAGGCATG_CGTCTAAT_cDNA190917_B6_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 296098
                                                                                    II
## ||
         Successfully assigned alignments : 231435 (78.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.02 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TAGGCATG_CTAAGCCT_cDNA190917_C6_627F_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 30570
                                                                                    II
         Successfully assigned alignments: 24396 (79.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7023_TAGGCATG_CTCTCTAT_cDNA190917_H6_627F_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 20261
         Successfully assigned alignments : 16907 (83.4%)
## ||
                                                                                    II
## ||
         Running time: 0.00 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_TAGGCATG_GTAAGGAG_cDNA190917_F6_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 140183
                                                                                    II
## ||
         Successfully assigned alignments: 117441 (83.8%)
                                                                                    | |
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TAGGCATG_TATCCTCT_cDNA190917_G6_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1659287
         Successfully assigned alignments: 1323725 (79.8%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.10 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TAGGCATG_TCTCTCCG_cDNA190917_A6_627F_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 3078388
                                                                                    II
## ||
         Successfully assigned alignments: 2596511 (84.3%)
## ||
                                                                                    II
## ||
         Running time: 0.17 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7023_TCCTGAGC_AAGGAGTA_cDNA190917_D4_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 161803
                                                                                    | |
## ||
         Successfully assigned alignments: 128817 (79.6%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7023_TCCTGAGC_ACTGCATA_cDNA190917_E4_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1783593
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1559170 (87.4%)
                                                                                    II
         Running time: 0.11 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7023_TCCTGAGC_CGTCTAAT_cDNA190917_B4_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 380972
                                                                                    II
## ||
         Successfully assigned alignments: 294465 (77.3%)
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_TCCTGAGC_CTAAGCCT_cDNA190917_C4_627F_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 317740
                                                                                    II
## ||
         Successfully assigned alignments : 213054 (67.1%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.02 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TCCTGAGC_CTCTCTAT_cDNA190917_H4_627F_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 415
                                                                                    II
         Successfully assigned alignments: 251 (60.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7023_TCCTGAGC_GTAAGGAG_cDNA190917_F4_627F_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 389860
         Successfully assigned alignments : 318630 (81.7%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7023_TCCTGAGC_TATCCTCT_cDNA190917_G4_627F_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 2179527
                                                                                    II
         Successfully assigned alignments: 1912119 (87.7%)
## ||
                                                                                    | |
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7023_TCCTGAGC_TCTCTCCG_cDNA190917_A4_627F_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1444002
         Successfully assigned alignments: 1154413 (79.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_AAGAGGCA_AAGGAGTA_cDNA190919_D9_568R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1092363
                                                                                    II
## ||
         Successfully assigned alignments: 901930 (82.6%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7035_AAGAGGCA_ACTGCATA_cDNA190919_E9_568R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 972779
## ||
         Successfully assigned alignments: 824219 (84.7%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7035_AAGAGGCA_CGTCTAAT_cDNA190919_B9_568R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2479120
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 2060472 (83.1%)
                                                                                    II
                                                                                    \prod
## ||
         Running time: 0.14 minutes
## ||
                                                                                    11
## || Process BAM file lane7035 AAGAGGCA CTAAGCCT cDNA190919 C9 568R d42 L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1029209
                                                                                    II
## ||
         Successfully assigned alignments: 834185 (81.1%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_AAGAGGCA_CTCTCTAT_cDNA190919_H9_568R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1666800
                                                                                    II
## ||
         Successfully assigned alignments : 1389480 (83.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.10 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7035_AAGAGGCA_GTAAGGAG_cDNA190919_F9_568R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1652888
                                                                                    II
         Successfully assigned alignments: 1335544 (80.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.10 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7035_AAGAGGCA_TATCCTCT_cDNA190919_G9_568R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1707506
         Successfully assigned alignments : 1431737 (83.8%)
## ||
                                                                                    II
## ||
         Running time: 0.10 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_AAGAGGCA_TCTCTCCCG_cDNA190919_A9_568R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 352782
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 275797 (78.2%)
                                                                                    | |
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_AGGCAGAA_AAGGAGTA_cDNA190919_D3_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 655020
         Successfully assigned alignments: 550653 (84.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_AGGCAGAA_ACTGCATA_cDNA190919_E3_536G_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 4
                                                                                    II
## ||
         Successfully assigned alignments: 2 (50.0%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7035_AGGCAGAA_CGTCTAAT_cDNA190919_B3_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 1101408
## ||
         Successfully assigned alignments: 931178 (84.5%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7035_AGGCAGAA_CTAAGCCT_cDNA190919_C3_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 528406
                                                                                    \Pi
## ||
         Successfully assigned alignments: 412900 (78.1%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    11
## || Process BAM file lane7035_AGGCAGAA_CTCTCTAT_cDNA190919_H3_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 514819
                                                                                    II
## ||
         Successfully assigned alignments: 411216 (79.9%)
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_AGGCAGAA_GTAAGGAG_cDNA190919_F3_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 997480
                                                                                    II
## ||
         Successfully assigned alignments : 843390 (84.6%)
                                                                                    \prod
## ||
         Running time : 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7035_AGGCAGAA_TATCCTCT_cDNA190919_G3_536G_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 712706
                                                                                    II
         Successfully assigned alignments: 615785 (86.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_AGGCAGAA_TCTCTCCCG_cDNA190919_A3_536G_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 538470
         Successfully assigned alignments : 452779 (84.1%)
## ||
                                                                                    II
         Running time : 0.03 minutes
                                                                                    II
## ||
## ||
                                                                                    II
## || Process BAM file lane7035_ATCTCAGG_AAGGAGTA_cDNA190919_D12_568R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 965580
                                                                                    II
## ||
         Successfully assigned alignments: 663438 (68.7%)
                                                                                    | |
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_ATCTCAGG_ACTGCATA_cDNA190919_E12_568R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 928185
                                                                                    II
## ||
         Successfully assigned alignments: 692442 (74.6%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_ATCTCAGG_CGTCTAAT_cDNA190919_B12_568R_d42_L0 \dots
         Paired-end reads are included.
         Total alignments: 1904705
                                                                                    II
## ||
         Successfully assigned alignments: 1537130 (80.7%)
## ||
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7035_ATCTCAGG_CTAAGCCT_cDNA190919_C12_568R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 3054220
                                                                                    | |
## ||
         Successfully assigned alignments: 2356162 (77.1%)
                                                                                    II
## ||
         Running time : 0.17 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7035_ATCTCAGG_CTCTCTAT_cDNA190919_H12_568R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 1539041
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1295709 (84.2%)
                                                                                    II
         Running time: 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7035 ATCTCAGG GTAAGGAG cDNA190919 F12 568R d42 L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2186668
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1763513 (80.6%)
                                                                                    II
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_ATCTCAGG_TATCCTCT_cDNA190919_G12_568R_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
         Total alignments: 3726430
                                                                                    II
## ||
         Successfully assigned alignments : 3080304 (82.7%)
                                                                                    \prod
## ||
         Running time: 0.20 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7035_ATCTCAGG_TCTCTCCG_cDNA190919_A12_568R_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 2758793
                                                                                    II
         Successfully assigned alignments: 2283789 (82.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.16 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7035_CGAGGCTG_AAGGAGTA_cDNA190919_D8_568R_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 740608
         Successfully assigned alignments : 617621 (83.4%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_CGAGGCTG_ACTGCATA_cDNA190919_E8_568R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1013051
                                                                                    II
## ||
         Successfully assigned alignments: 855015 (84.4%)
                                                                                    | |
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CGAGGCTG_CGTCTAAT_cDNA190919_B8_568R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 989235
         Successfully assigned alignments: 811707 (82.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CGAGGCTG_CTAAGCCT_cDNA190919_C8_568R_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 999539
                                                                                    II
## ||
         Successfully assigned alignments: 835444 (83.6%)
## ||
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7035_CGAGGCTG_CTCTCTAT_cDNA190919_H8_568R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 1371912
## ||
         Successfully assigned alignments: 1159128 (84.5%)
                                                                                    II
## ||
         Running time : 0.08 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7035_CGAGGCTG_GTAAGGAG_cDNA190919_F8_568R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 877710
                                                                                    \Pi
## ||
         Successfully assigned alignments: 739445 (84.2%)
                                                                                    II
         Running time: 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7035_CGAGGCTG_TATCCTCT_cDNA190919_G8_568R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1148654
                                                                                    II
## ||
         Successfully assigned alignments: 980744 (85.4%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_CGAGGCTG_TCTCTCCCG_cDNA190919_A8_568R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1968304
                                                                                    II
## ||
         Successfully assigned alignments : 1697056 (86.2%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time: 0.12 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CGTACTAG_AAGGAGTA_cDNA190919_D2_536G_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 732077
                                                                                    \Pi
         Successfully assigned alignments: 595866 (81.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_CGTACTAG_ACTGCATA_cDNA190919_E2_536G_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 294730
         Successfully assigned alignments : 236167 (80.1%)
## ||
                                                                                    II
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_CGTACTAG_CGTCTAAT_cDNA190919_B2_536G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 326570
                                                                                    II
## ||
         Successfully assigned alignments: 276442 (84.7%)
                                                                                    | |
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CGTACTAG_CTAAGCCT_cDNA190919_C2_536G_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 931366
         Successfully assigned alignments: 740276 (79.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CGTACTAG_CTCTCTAT_cDNA190919_H2_559G_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 731218
                                                                                    II
## ||
         Successfully assigned alignments: 513091 (70.2%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7035_CGTACTAG_GTAAGGAG_cDNA190919_F2_559G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
                                                                                    | |
         Total alignments: 357255
## ||
         Successfully assigned alignments: 264228 (74.0%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## ||
## || Process BAM file lane7035_CGTACTAG_TATCCTCT_cDNA190919_G2_559G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 129937
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 86967 (66.9%)
                                                                                    II
         Running time: 0.02 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7035_CGTACTAG_TCTCTCCG_cDNA190919_A2_536G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 549105
                                                                                    II
## ||
         Successfully assigned alignments: 478520 (87.1%)
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_CTCTCTAC_AAGGAGTA_cDNA190919_D7_568R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 921852
                                                                                    II
## ||
         Successfully assigned alignments: 739999 (80.3%)
                                                                                    \prod
## ||
         Running time: 0.06 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CTCTCTAC_ACTGCATA_cDNA190919_E7_568R_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1183232
                                                                                    \Pi
         Successfully assigned alignments: 999947 (84.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \prod
## ||
                                                                                    | |
## || Process BAM file lane7035_CTCTCTAC_CGTCTAAT_cDNA190919_B7_568R_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1270221
         Successfully assigned alignments : 1066533 (84.0\%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_CTCTCTAC_CTAAGCCT_cDNA190919_C7_568R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 1368222
## ||
                                                                                    II
         Successfully assigned alignments: 1115999 (81.6%)
                                                                                    | |
## ||
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CTCTCTAC_CTCTCTAT_cDNA190919_H7_568R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1118638
                                                                                    II
         Successfully assigned alignments: 922748 (82.5%)
                                                                                    П
## ||
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CTCTCTAC_GTAAGGAG_cDNA190919_F7_568R_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 774812
                                                                                    II
## ||
         Successfully assigned alignments: 640473 (82.7%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7035_CTCTCTAC_TATCCTCT_cDNA190919_G7_568R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 1292677
## ||
         Successfully assigned alignments: 1043442 (80.7%)
                                                                                    II
## ||
         Running time : 0.08 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane7035_CTCTCTAC_TCTCTCCG_cDNA190919_A7_568R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 894931
                                                                                    \Pi
## ||
         Successfully assigned alignments: 754643 (84.3%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7035 GCTCATGA AAGGAGTA cDNA190919 D11 568R d42 L0 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 1251578
                                                                                    II
## ||
         Successfully assigned alignments: 995614 (79.5%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_GCTCATGA_ACTGCATA_cDNA190919_E11_568R_d42_L0 \dots ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1546680
## ||
                                                                                    II
         Successfully assigned alignments: 1347109 (87.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.09 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_GCTCATGA_CGTCTAAT_cDNA190919_B11_568R_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 2060265
                                                                                    II
         Successfully assigned alignments: 1552036 (75.3%)
                                                                                    \prod
## ||
## ||
         Running time : 0.12 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_GCTCATGA_CTAAGCCT_cDNA190919_C11_568R_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2367982
         Successfully assigned alignments : 1939048 (81.9%)
## ||
                                                                                    II
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_GCTCATGA_CTCTCTAT_cDNA190919_H11_568R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 3525047
## ||
                                                                                    II
         Successfully assigned alignments: 2981614 (84.6%)
                                                                                    | |
## ||
## ||
         Running time: 0.20 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_GCTCATGA_GTAAGGAG_cDNA190919_F11_568R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1777988
                                                                                    II
         Successfully assigned alignments: 1468912 (82.6%)
## ||
                                                                                    П
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_GCTCATGA_TATCCTCT_cDNA190919_G11_568R_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 1886236
                                                                                    II
## ||
         Successfully assigned alignments: 1601915 (84.9%)
## ||
                                                                                    II
## ||
         Running time : 0.11 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7035_GCTCATGA_TCTCTCCG_cDNA190919_A11_568R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 2358107
## ||
         Successfully assigned alignments: 1897795 (80.5%)
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7035_GGACTCCT_AAGGAGTA_cDNA190919_D5_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 758748
                                                                                    \Pi
## ||
         Successfully assigned alignments : 616835 (81.3%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7035_GGACTCCT_ACTGCATA_cDNA190919_E5_536G_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 731708
                                                                                    II
## ||
         Successfully assigned alignments: 615646 (84.1%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_GGACTCCT_CGTCTAAT_cDNA190919_B5_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1120478
                                                                                    II
## ||
         Successfully assigned alignments : 934397 (83.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.07 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7035_GGACTCCT_CTAAGCCT_cDNA190919_C5_536G_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 917259
                                                                                    II
         Successfully assigned alignments: 768610 (83.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_GGACTCCT_CTCTCTAT_cDNA190919_H5_536G_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1380021
         Successfully assigned alignments : 1160382 (84.1%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_GGACTCCT_GTAAGGAG_cDNA190919_F5_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | | |
         Total alignments: 778296
                                                                                    II
## ||
         Successfully assigned alignments : 647592 (83.2%)
                                                                                    | |
## ||
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_GGACTCCT_TATCCTCT_cDNA190919_G5_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 973041
                                                                                    II
         Successfully assigned alignments: 735731 (75.6%)
## ||
                                                                                    П
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
## || Process BAM file lane7035_GGACTCCT_TCTCTCCG_cDNA190919_A5_536G_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 981138
                                                                                    II
## ||
         Successfully assigned alignments: 825895 (84.2%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7035_GTAGAGGA_AAGGAGTA_cDNA190919_D10_568R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 755203
                                                                                    | |
## ||
         Successfully assigned alignments: 577308 (76.4%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7035_GTAGAGGA_ACTGCATA_cDNA190919_E10_568R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1500546
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1246784 (83.1%)
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7035_GTAGAGGA_CGTCTAAT_cDNA190919_B10_568R_d42_L0 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 3124161
                                                                                    II
## ||
         Successfully assigned alignments: 2559151 (81.9%)
                                                                                    II
## ||
         Running time: 0.17 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_GTAGAGGA_CTAAGCCT_cDNA190919_C10_568R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
         Total alignments: 1102076
                                                                                    II
## ||
         Successfully assigned alignments : 896154 (81.3%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7035_GTAGAGGA_CTCTCTAT_cDNA190919_H10_568R_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 2059092
                                                                                    II
         Successfully assigned alignments: 1707284 (82.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.12 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_GTAGAGGA_GTAAGGAG_cDNA190919_F10_568R_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1582674
         Successfully assigned alignments : 1313950 (83.0%)
## ||
                                                                                    II
## ||
         Running time: 0.10 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_GTAGAGGA_TATCCTCT_cDNA190919_G10_568R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
         Total alignments: 2679105
## ||
                                                                                    II
         Successfully assigned alignments: 2295125 (85.7%)
                                                                                    | |
## ||
## ||
         Running time: 0.15 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_GTAGAGGA_TCTCTCCG_cDNA190919_A10_568R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1795511
                                                                                    II
         Successfully assigned alignments: 1475478 (82.2%)
## ||
                                                                                    П
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_TAAGGCGA_AAGGAGTA_cDNA190919_D1_536G_d0_L001 ...
         Paired-end reads are included.
         Total alignments: 659471
                                                                                    II
## ||
         Successfully assigned alignments: 543313 (82.4%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7035_TAAGGCGA_ACTGCATA_cDNA190919_E1_536G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 403095
## ||
         Successfully assigned alignments: 344170 (85.4%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
## ||
                                                                                    П
## || Process BAM file lane7035_TAAGGCGA_CGTCTAAT_cDNA190919_B1_536G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1302785
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1110867 (85.3%)
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7035_TAAGGCGA_CTAAGCCT_cDNA190919_C1_536G_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 588013
                                                                                    II
## ||
         Successfully assigned alignments: 447262 (76.1%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_TAAGGCGA_CTCTCTAT_cDNA190919_H1_559G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 993132
                                                                                    II
## ||
         Successfully assigned alignments : 697425 (70.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_TAAGGCGA_GTAAGGAG_cDNA190919_F1_559G_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 117861
                                                                                    II
         Successfully assigned alignments: 81424 (69.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.01 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_TAAGGCGA_TATCCTCT_cDNA190919_G1_559G_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 365685
         Successfully assigned alignments : 261092 (71.4%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_TAAGGCGA_TCTCTCCG_cDNA190919_A1_536G_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 434229
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 370731 (85.4%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_TAGGCATG_AAGGAGTA_cDNA190919_D6_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 988610
                                                                                    II
         Successfully assigned alignments: 828134 (83.8%)
## ||
                                                                                    П
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_TAGGCATG_ACTGCATA_cDNA190919_E6_536G_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 684559
                                                                                    II
## ||
         Successfully assigned alignments: 571187 (83.4%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7035_TAGGCATG_CGTCTAAT_cDNA190919_B6_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 1700179
## ||
         Successfully assigned alignments: 1421470 (83.6%)
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7035_TAGGCATG_CTAAGCCT_cDNA190919_C6_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1076119
                                                                                    \Pi
## ||
         Successfully assigned alignments: 921158 (85.6%)
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7035_TAGGCATG_CTCTCTAT_cDNA190919_H6_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 775467
                                                                                    II
## ||
         Successfully assigned alignments: 632095 (81.5%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7035_TAGGCATG_GTAAGGAG_cDNA190919_F6_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 363293
                                                                                    II
## ||
         Successfully assigned alignments : 306321 (84.3%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.03 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7035_TAGGCATG_TATCCTCT_cDNA190919_G6_536G_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1091256
                                                                                    II
         Successfully assigned alignments: 866892 (79.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7035_TAGGCATG_TCTCTCCG_cDNA190919_A6_536G_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1626003
         Successfully assigned alignments : 1383448 (85.1%)
## ||
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_TCCTGAGC_AAGGAGTA_cDNA190919_D4_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 208934
                                                                                    II
## ||
         Successfully assigned alignments : 177665 (85.0%)
                                                                                    | |
## ||
## ||
         Running time: 0.02 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_TCCTGAGC_ACTGCATA_cDNA190919_E4_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 654840
                                                                                    II
         Successfully assigned alignments: 551101 (84.2%)
## ||
                                                                                    П
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7035_TCCTGAGC_CGTCTAAT_cDNA190919_B4_536G_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 909182
                                                                                    II
## ||
         Successfully assigned alignments: 796917 (87.7%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7035_TCCTGAGC_CTAAGCCT_cDNA190919_C4_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 594306
## ||
         Successfully assigned alignments: 480607 (80.9%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7035_TCCTGAGC_CTCTCTAT_cDNA190919_H4_536G_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 127938
                                                                                    \Pi
## ||
         Successfully assigned alignments: 106404 (83.2%)
                                                                                    II
## ||
         Running time : 0.01 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7035_TCCTGAGC_GTAAGGAG_cDNA190919_F4_536G_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 630986
                                                                                    II
## ||
         Successfully assigned alignments: 540170 (85.6%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7035_TCCTGAGC_TATCCTCT_cDNA190919_G4_536G_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 698969
                                                                                    II
## ||
         Successfully assigned alignments : 591929 (84.7%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.05 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7035_TCCTGAGC_TCTCTCCG_cDNA190919_A4_536G_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1079850
                                                                                    II
         Successfully assigned alignments: 911262 (84.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_AAGAGGCA_AAGGAGTA_cDNA190920_D9_602D_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1456390
         Successfully assigned alignments : 1239553 (85.1%)
## ||
                                                                                    II
## ||
         Running time: 0.09 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_AAGAGGCA_ACTGCATA_cDNA190920_E9_602D_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 1055459
                                                                                    II
## ||
         Successfully assigned alignments: 914237 (86.6%)
                                                                                    | |
## ||
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_AAGAGGCA_CGTCTAAT_cDNA190920_B9_602D_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2235521
                                                                                    II
         Successfully assigned alignments: 1870630 (83.7%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.13 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_AAGAGGCA_CTAAGCCT_cDNA190920_C9_602D_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 2015933
                                                                                    II
## ||
         Successfully assigned alignments: 1642843 (81.5%)
## ||
                                                                                    II
## ||
         Running time : 0.12 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7043_AAGAGGCA_CTCTCTAT_cDNA190920_H9_602D_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 1375876
## ||
         Successfully assigned alignments: 1230781 (89.5%)
                                                                                    II
## ||
         Running time : 0.09 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7043_AAGAGGCA_GTAAGGAG_cDNA190920_F9_602D_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 994860
                                                                                    \Pi
## ||
         Successfully assigned alignments: 865417 (87.0%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_AAGAGGCA_TATCCTCT_cDNA190920_G9_602D_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 1562260
                                                                                    II
## ||
         Successfully assigned alignments: 1211089 (77.5%)
                                                                                    II
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7043_AAGAGGCA_TCTCTCCCG_cDNA190920_A9_602D_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
                                                                                    II
## ||
         Total alignments: 1951117
         Successfully assigned alignments : 1714611 (87.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.11 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_AGGCAGAA_AAGGAGTA_cDNA190920_D3_541M_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 660741
                                                                                    II
         Successfully assigned alignments: 558720 (84.6%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_AGGCAGAA_ACTGCATA_cDNA190920_E3_541M_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 484521
         Successfully assigned alignments : 406513 (83.9\%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_AGGCAGAA_CGTCTAAT_cDNA190920_B3_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 1119562
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 946627 (84.6%)
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_AGGCAGAA_CTAAGCCT_cDNA190920_C3_541M_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 727892
         Successfully assigned alignments: 624909 (85.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_AGGCAGAA_CTCTCTAT_cDNA190920_H3_541M_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 90
                                                                                    II
## ||
         Successfully assigned alignments: 46 (51.1%)
## ||
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7043_AGGCAGAA_GTAAGGAG_cDNA190920_F3_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 470637
## ||
         Successfully assigned alignments: 405327 (86.1%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7043_AGGCAGAA_TATCCTCT_cDNA190920_G3_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 272595
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 209384 (76.8%)
                                                                                    II
         Running time: 0.02 minutes
## ||
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_AGGCAGAA_TCTCTCCG_cDNA190920_A3_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 855760
                                                                                    II
## ||
         Successfully assigned alignments: 719159 (84.0%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_ATCTCAGG_AAGGAGTA_cDNA190920_D12_602D_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 3588571
                                                                                    II
## ||
         Successfully assigned alignments : 3115366 (86.8%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.20 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7043_ATCTCAGG_ACTGCATA_cDNA190920_E12_602D_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 2441441
                                                                                    II
         Successfully assigned alignments: 2103957 (86.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.14 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_ATCTCAGG_CGTCTAAT_cDNA190920_B12_602D_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 5240097
## ||
         Successfully assigned alignments: 4537452 (86.6%)
                                                                                    II
## ||
         Running time: 0.28 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_ATCTCAGG_CTAAGCCT_cDNA190920_C12_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 4215403
## ||
                                                                                    II
         Successfully assigned alignments: 3652487 (86.6%)
                                                                                    | |
## ||
## ||
         Running time: 0.24 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_ATCTCAGG_CTCTCTAT_cDNA190920_H12_602D_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 2573466
                                                                                    II
         Successfully assigned alignments: 2207335 (85.8%)
## ||
                                                                                    П
## ||
         Running time : 0.15 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_ATCTCAGG_GTAAGGAG_cDNA190920_F12_602D_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 3116912
                                                                                    II
## ||
         Successfully assigned alignments: 2622868 (84.1%)
## ||
                                                                                    II
         Running time : 0.18 minutes
## ||
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7043_ATCTCAGG_TATCCTCT_cDNA190920_G12_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 3543896
                                                                                    | |
## ||
         Successfully assigned alignments: 3096868 (87.4%)
                                                                                    II
## ||
         Running time : 0.21 minutes
                                                                                    \prod
## ||
                                                                                    \Pi
## || Process BAM file lane7043_ATCTCAGG_TCTCTCCG_cDNA190920_A12_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 3453645
                                                                                    \Pi
## ||
         Successfully assigned alignments: 2998803 (86.8%)
                                                                                    II
## ||
         Running time: 0.19 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043 CGAGGCTG AAGGAGTA cDNA190920 D8 562K d0 L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 878053
                                                                                    II
## ||
         Successfully assigned alignments: 690455 (78.6%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7043_CGAGGCTG_ACTGCATA_cDNA190920_E8_562K_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 784803
                                                                                    II
## ||
         Successfully assigned alignments : 606901 (77.3%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CGAGGCTG_CGTCTAAT_cDNA190920_B8_562K_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 997850
                                                                                    II
         Successfully assigned alignments: 735023 (73.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_CGAGGCTG_CTAAGCCT_cDNA190920_C8_562K_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 573595
         Successfully assigned alignments : 407921 (71.1%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_CGAGGCTG_CTCTCTAT_cDNA190920_H8_562K_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 931330
## ||
                                                                                    II
         Successfully assigned alignments: 717476 (77.0%)
                                                                                    | |
## ||
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CGAGGCTG_GTAAGGAG_cDNA190920_F8_562K_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 594119
                                                                                    II
         Successfully assigned alignments: 443355 (74.6%)
## ||
                                                                                    П
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CGAGGCTG_TATCCTCT_cDNA190920_G8_562K_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 776630
                                                                                    II
## ||
         Successfully assigned alignments: 592481 (76.3%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7043_CGAGGCTG_TCTCTCCG_cDNA190920_A8_602D_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 1032085
## ||
         Successfully assigned alignments: 886457 (85.9%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7043_CGTACTAG_AAGGAGTA_cDNA190920_D2_541M_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 582468
                                                                                    \Pi
## ||
         Successfully assigned alignments : 511612 (87.8%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_CGTACTAG_ACTGCATA_cDNA190920_E2_541M_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 546331
                                                                                    II
## ||
         Successfully assigned alignments: 447891 (82.0%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7043_CGTACTAG_CGTCTAAT_cDNA190920_B2_541M_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1453703
                                                                                    II
## ||
         Successfully assigned alignments : 1242455 (85.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.09 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CGTACTAG_CTAAGCCT_cDNA190920_C2_541M_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 895556
                                                                                    II
         Successfully assigned alignments: 759153 (84.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.06 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_CGTACTAG_CTCTCTAT_cDNA190920_H2_543P_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 463180
         Successfully assigned alignments : 351531 (75.9\%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_CGTACTAG_GTAAGGAG_cDNA190920_F2_541M_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 472313
                                                                                    II
## ||
         Successfully assigned alignments: 412702 (87.4%)
## ||
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CGTACTAG_TATCCTCT_cDNA190920_G2_543P_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 701898
                                                                                    II
         Successfully assigned alignments: 496421 (70.7%)
## ||
                                                                                    П
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CGTACTAG_TCTCTCCG_cDNA190920_A2_541M_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 860889
                                                                                    II
## ||
         Successfully assigned alignments: 697975 (81.1%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7043_CTCTCTAC_AAGGAGTA_cDNA190920_D7_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 955438
## ||
         Successfully assigned alignments: 759894 (79.5%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7043_CTCTCTAC_ACTGCATA_cDNA190920_E7_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 697527
                                                                                    \Pi
## ||
         Successfully assigned alignments : 556441 (79.8%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_CTCTCTAC_CGTCTAAT_cDNA190920_B7_543P_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 947079
                                                                                    II
## ||
         Successfully assigned alignments: 694049 (73.3%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_CTCTCTAC_CTAAGCCT_cDNA190920_C7_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 987692
                                                                                    II
## ||
         Successfully assigned alignments : 753148 (76.3%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.07 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CTCTCTAC_CTCTCTAT_cDNA190920_H7_543P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1161495
                                                                                    II
         Successfully assigned alignments: 889988 (76.6%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_CTCTCTAC_GTAAGGAG_cDNA190920_F7_543P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 686570
         Successfully assigned alignments : 547941 (79.8\%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_CTCTCTAC_TATCCTCT_cDNA190920_G7_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 850884
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 680622 (80.0%)
                                                                                    | |
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_CTCTCTAC_TCTCTCCG_cDNA190920_A7_602D_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 42175
         Successfully assigned alignments: 35887 (85.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GCTCATGA_AAGGAGTA_cDNA190920_D11_602D_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 2835743
                                                                                    II
## ||
         Successfully assigned alignments: 2413521 (85.1%)
## ||
                                                                                    II
## ||
         Running time : 0.16 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7043_GCTCATGA_ACTGCATA_cDNA190920_E11_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 1886773
                                                                                    | |
## ||
         Successfully assigned alignments: 1624842 (86.1%)
                                                                                    II
## ||
         Running time : 0.11 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7043_GCTCATGA_CGTCTAAT_cDNA190920_B11_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 4503441
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 3844144 (85.4%)
                                                                                    II
         Running time: 0.25 minutes
## ||
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_GCTCATGA_CTAAGCCT_cDNA190920_C11_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 3968992
                                                                                    II
## ||
         Successfully assigned alignments: 3358820 (84.6%)
                                                                                    II
         Running time: 0.22 minutes
## ||
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_GCTCATGA_CTCTCTAT_cDNA190920_H11_602D_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
         Total alignments: 2454256
                                                                                    II
## ||
         Successfully assigned alignments : 2126380 (86.6%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.14 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GCTCATGA_GTAAGGAG_cDNA190920_F11_602D_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 1992142
                                                                                    II
         Successfully assigned alignments: 1683089 (84.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.12 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_GCTCATGA_TATCCTCT_cDNA190920_G11_602D_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 3217139
         Successfully assigned alignments : 2743319 (85.3\%)
## ||
                                                                                    II
## ||
         Running time: 0.18 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_GCTCATGA_TCTCTCCG_cDNA190920_A11_602D_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 3171125
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 2775681 (87.5%)
                                                                                    | |
## ||
         Running time: 0.18 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GGACTCCT_AAGGAGTA_cDNA190920_D5_541M_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 788174
         Successfully assigned alignments: 678787 (86.1%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GGACTCCT_ACTGCATA_cDNA190920_E5_541M_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 346900
                                                                                    II
## ||
         Successfully assigned alignments: 279224 (80.5%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7043_GGACTCCT_CGTCTAAT_cDNA190920_B5_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 1175345
## ||
         Successfully assigned alignments: 1002439 (85.3%)
                                                                                    II
## ||
         Running time : 0.07 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7043_GGACTCCT_CTAAGCCT_cDNA190920_C5_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 692578
                                                                                    \Pi
## ||
         Successfully assigned alignments: 589209 (85.1%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_GGACTCCT_CTCTCTAT_cDNA190920_H5_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 409653
                                                                                    II
## ||
         Successfully assigned alignments: 334748 (81.7%)
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_GGACTCCT_GTAAGGAG_cDNA190920_F5_541M_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
         Total alignments: 516127
                                                                                    II
## ||
         Successfully assigned alignments : 445908 (86.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.04 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GGACTCCT_TATCCTCT_cDNA190920_G5_541M_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 575233
                                                                                    II
         Successfully assigned alignments: 463335 (80.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_GGACTCCT_TCTCTCCG_cDNA190920_A5_541M_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 986238
         Successfully assigned alignments : 849505 (86.1\%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_GTAGAGGA_AAGGAGTA_cDNA190920_D10_602D_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 2120473
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 1838529 (86.7%)
                                                                                    | |
## ||
         Running time: 0.13 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GTAGAGGA_ACTGCATA_cDNA190920_E10_602D_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1652863
                                                                                    II
         Successfully assigned alignments: 1440928 (87.2%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.10 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GTAGAGGA_CGTCTAAT_cDNA190920_B10_602D_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 4004819
                                                                                    II
## ||
         Successfully assigned alignments: 3462880 (86.5%)
## ||
                                                                                    II
## ||
         Running time : 0.23 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7043_GTAGAGGA_CTAAGCCT_cDNA190920_C10_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2574367
                                                                                    | |
## ||
         Successfully assigned alignments: 2201309 (85.5%)
                                                                                    II
## ||
         Running time : 0.15 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7043_GTAGAGGA_CTCTCTAT_cDNA190920_H10_602D_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 2451715
                                                                                    \Pi
## ||
         Successfully assigned alignments: 2037317 (83.1%)
                                                                                    II
## ||
         Running time : 0.14 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_GTAGAGGA_GTAAGGAG_cDNA190920_F10_602D_d42_L0 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 1484875
                                                                                    II
## ||
         Successfully assigned alignments: 1264504 (85.2%)
                                                                                    II
## ||
         Running time : 0.09 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_GTAGAGGA_TATCCTCT_cDNA190920_G10_602D_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
         Total alignments: 1602997
                                                                                    II
## ||
         Successfully assigned alignments : 1380693 (86.1%)
                                                                                    \prod
## ||
         Running time : 0.09 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7043_GTAGAGGA_TCTCTCCG_cDNA190920_A10_602D_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 2553639
                                                                                    II
         Successfully assigned alignments: 2184256 (85.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.15 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_TAAGGCGA_AAGGAGTA_cDNA190920_D1_541M_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 574717
         Successfully assigned alignments: 486569 (84.7%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_TAAGGCGA_ACTGCATA_cDNA190920_E1_541M_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 646941
                                                                                    II
## ||
         Successfully assigned alignments: 525226 (81.2%)
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TAAGGCGA_CGTCTAAT_cDNA190920_B1_541M_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 1206766
         Successfully assigned alignments: 1020000 (84.5%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TAAGGCGA_CTAAGCCT_cDNA190920_C1_541M_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 1008192
                                                                                    II
## ||
         Successfully assigned alignments: 824735 (81.8%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7043_TAAGGCGA_CTCTCTAT_cDNA190920_H1_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 288673
                                                                                    | |
## ||
         Successfully assigned alignments: 228492 (79.2%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    \prod
## || Process BAM file lane7043_TAAGGCGA_GTAAGGAG_cDNA190920_F1_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 402666
                                                                                    \Pi
## ||
         Successfully assigned alignments: 238259 (59.2%)
                                                                                    II
         Running time: 0.03 minutes
                                                                                    \prod
## ||
## ||
                                                                                    11
## || Process BAM file lane7043_TAAGGCGA_TATCCTCT_cDNA190920_G1_543P_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 663287
                                                                                    II
## ||
         Successfully assigned alignments: 513650 (77.4%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_TAAGGCGA_TCTCTCCG_cDNA190920_A1_541M_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 683942
                                                                                    II
## ||
         Successfully assigned alignments : 587234 (85.9%)
                                                                                    \prod
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TAGGCATG_AAGGAGTA_cDNA190920_D6_541M_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 498673
                                                                                    II
         Successfully assigned alignments: 386687 (77.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_TAGGCATG_ACTGCATA_cDNA190920_E6_541M_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 555339
         Successfully assigned alignments : 437223 (78.7%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_TAGGCATG_CGTCTAAT_cDNA190920_B6_541M_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 952682
                                                                                    II
## ||
         Successfully assigned alignments: 798966 (83.9%)
                                                                                    | |
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TAGGCATG_CTAAGCCT_cDNA190920_C6_541M_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 520438
         Successfully assigned alignments: 440343 (84.6%)
## ||
                                                                                    П
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TAGGCATG_CTCTCTAT_cDNA190920_H6_541M_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 388131
                                                                                    II
## ||
         Successfully assigned alignments: 303084 (78.1%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7043_TAGGCATG_GTAAGGAG_cDNA190920_F6_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 329862
                                                                                    | |
## ||
         Successfully assigned alignments: 255638 (77.5%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7043_TAGGCATG_TATCCTCT_cDNA190920_G6_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 68965
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 55764 (80.9%)
                                                                                    II
         Running time : 0.01 minutes
## ||
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7043_TAGGCATG_TCTCTCCG_cDNA190920_A6_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 952124
                                                                                    II
## ||
         Successfully assigned alignments: 807586 (84.8%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_TCCTGAGC_AAGGAGTA_cDNA190920_D4_541M_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 252406
                                                                                    II
## ||
         Successfully assigned alignments: 211838 (83.9%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.02 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TCCTGAGC_ACTGCATA_cDNA190920_E4_541M_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 340015
                                                                                    II
         Successfully assigned alignments: 266050 (78.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7043_TCCTGAGC_CGTCTAAT_cDNA190920_B4_541M_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 847150
         Successfully assigned alignments : 735026 (86.8%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7043_TCCTGAGC_CTAAGCCT_cDNA190920_C4_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 358579
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 303283 (84.6%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TCCTGAGC_CTCTCTAT_cDNA190920_H4_541M_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 145267
                                                                                    II
         Successfully assigned alignments: 118015 (81.2%)
## ||
                                                                                    П
## ||
         Running time : 0.01 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7043_TCCTGAGC_GTAAGGAG_cDNA190920_F4_541M_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 634908
                                                                                    II
## ||
         Successfully assigned alignments: 540473 (85.1%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7043_TCCTGAGC_TATCCTCT_cDNA190920_G4_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 607459
## ||
         Successfully assigned alignments: 502259 (82.7%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7043_TCCTGAGC_TCTCTCCG_cDNA190920_A4_541M_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 765329
                                                                                    \Pi
## ||
         Successfully assigned alignments: 653218 (85.4%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048 AAGAGGCA AAGGAGTA cDNA190921 D9 660R d42 L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 944850
                                                                                    II
## ||
         Successfully assigned alignments: 751741 (79.6%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_AAGAGGCA_ACTGCATA_cDNA190921_E9_660R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1137122
                                                                                    II
## ||
         Successfully assigned alignments: 956548 (84.1%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.07 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7048_AAGAGGCA_CGTCTAAT_cDNA190921_B9_660R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 2246669
                                                                                    II
         Successfully assigned alignments: 1822544 (81.1%)
                                                                                    \prod
## ||
## ||
         Running time : 0.13 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_AAGAGGCA_CTAAGCCT_cDNA190921_C9_660R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1154663
         Successfully assigned alignments: 932864 (80.8%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_AAGAGGCA_CTCTCTAT_cDNA190921_H9_660R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
## ||
         Total alignments: 1162858
                                                                                    II
## ||
         Successfully assigned alignments: 869022 (74.7%)
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_AAGAGGCA_GTAAGGAG_cDNA190921_F9_660R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 990756
         Successfully assigned alignments: 781614 (78.9%)
## ||
                                                                                    \Pi
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_AAGAGGCA_TATCCTCT_cDNA190921_G9_660R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1395221
                                                                                    II
## ||
         Successfully assigned alignments: 1146487 (82.2%)
## ||
                                                                                    II
## ||
         Running time: 0.08 minutes
                                                                                    II
                                                                                    II
## || Process BAM file lane7048_AAGAGGCA_TCTCTCCG_cDNA190921_A9_660R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
## ||
         Total alignments: 840602
                                                                                    | |
## ||
         Successfully assigned alignments: 633622 (75.4%)
                                                                                    II
## ||
         Running time : 0.05 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7048_AGGCAGAA_AAGGAGTA_cDNA190921_D3_637R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 464251
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 372276 (80.2%)
                                                                                    II
         Running time: 0.03 minutes
## ||
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_AGGCAGAA_ACTGCATA_cDNA190921_E3_637R_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 455261
                                                                                    II
## ||
         Successfully assigned alignments: 378014 (83.0%)
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_AGGCAGAA_CGTCTAAT_cDNA190921_B3_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 679324
                                                                                    II
## ||
         Successfully assigned alignments : 502646 (74.0%)
                                                                                    \prod
## ||
         Running time : 0.04 minutes
                                                                                    \prod
## ||
## ||
                                                                                    \Pi
## || Process BAM file lane7048_AGGCAGAA_CTAAGCCT_cDNA190921_C3_637R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 677581
                                                                                    II
         Successfully assigned alignments: 576072 (85.0%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_AGGCAGAA_CTCTCTAT_cDNA190921_H3_637R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 497459
         Successfully assigned alignments : 399081 (80.2\%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_AGGCAGAA_GTAAGGAG_cDNA190921_F3_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 415741
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 331714 (79.8%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_AGGCAGAA_TATCCTCT_cDNA190921_G3_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 564298
         Successfully assigned alignments: 470499 (83.4%)
## ||
                                                                                    П
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_AGGCAGAA_TCTCTCCG_cDNA190921_A3_637R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 827942
                                                                                    II
## ||
         Successfully assigned alignments: 665543 (80.4%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_ATCTCAGG_AAGGAGTA_cDNA190921_D12_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2654358
                                                                                    | |
## ||
         Successfully assigned alignments: 1837017 (69.2%)
                                                                                    II
## ||
         Running time : 0.14 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7048_ATCTCAGG_ACTGCATA_cDNA190921_E12_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 2268510
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1752297 (77.2%)
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_ATCTCAGG_CGTCTAAT_cDNA190921_B12_660R_d42_L0 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 4970314
                                                                                    II
## ||
         Successfully assigned alignments: 4158710 (83.7%)
                                                                                    II
## ||
         Running time: 0.27 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_ATCTCAGG_CTAAGCCT_cDNA190921_C12_660R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
         Total alignments: 4060273
                                                                                    II
## ||
         Successfully assigned alignments : 3471525 (85.5%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.23 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7048_ATCTCAGG_CTCTCTAT_cDNA190921_H12_660R_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 3182115
                                                                                    II
         Successfully assigned alignments: 2636079 (82.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.18 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_ATCTCAGG_GTAAGGAG_cDNA190921_F12_660R_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2095865
         Successfully assigned alignments : 1614454 (77.0\%)
## ||
                                                                                    II
## ||
         Running time: 0.12 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_ATCTCAGG_TATCCTCT_cDNA190921_G12_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
         Total alignments: 2826557
## ||
                                                                                    II
         Successfully assigned alignments: 2003696 (70.9%)
                                                                                    | |
## ||
## ||
         Running time: 0.16 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_ATCTCAGG_TCTCTCCG_cDNA190921_A12_660R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 4260876
                                                                                    II
         Successfully assigned alignments: 3509095 (82.4%)
## ||
                                                                                    П
## ||
         Running time : 0.24 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_CGAGGCTG_AAGGAGTA_cDNA190921_D8_660R_d0_L001 ... ||
         Paired-end reads are included.
         Total alignments: 458568
                                                                                    II
## ||
         Successfully assigned alignments: 376194 (82.0%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_CGAGGCTG_ACTGCATA_cDNA190921_E8_660R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 25
## ||
         Successfully assigned alignments : 1 (4.0%)
                                                                                    II
## ||
         Running time : 0.00 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7048_CGAGGCTG_CGTCTAAT_cDNA190921_B8_660R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 984033
                                                                                    \Pi
## ||
         Successfully assigned alignments: 812516 (82.6%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_CGAGGCTG_CTAAGCCT_cDNA190921_C8_660R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 790757
                                                                                    II
## ||
         Successfully assigned alignments: 604542 (76.5%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7048_CGAGGCTG_CTCTCTAT_cDNA190921_H8_637R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1149798
                                                                                    II
## ||
         Successfully assigned alignments : 912738 (79.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.07 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7048_CGAGGCTG_GTAAGGAG_cDNA190921_F8_637R_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 581369
                                                                                    II
         Successfully assigned alignments: 468134 (80.5%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_CGAGGCTG_TATCCTCT_cDNA190921_G8_637R_d0_L001 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 872206
         Successfully assigned alignments : 687399 (78.8\%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_CGAGGCTG_TCTCTCCCG_cDNA190921_A8_660R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 1192620
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 975051 (81.8%)
                                                                                    | |
## ||
         Running time: 0.07 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_CGTACTAG_AAGGAGTA_cDNA190921_D2_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 447259
                                                                                    II
         Successfully assigned alignments: 356842 (79.8%)
## ||
                                                                                    П
## ||
         Running time : 0.03 minutes
                                                                                    II
## ||
## || Process BAM file lane7048_CGTACTAG_ACTGCATA_cDNA190921_E2_543P_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 317482
                                                                                    II
## ||
         Successfully assigned alignments: 245408 (77.3%)
## ||
                                                                                    II
## ||
         Running time: 0.02 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_CGTACTAG_CGTCTAAT_cDNA190921_B2_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 689322
                                                                                    | |
## ||
         Successfully assigned alignments: 542280 (78.7%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7048_CGTACTAG_CTAAGCCT_cDNA190921_C2_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 517800
                                                                                    \Pi
## ||
         Successfully assigned alignments: 370804 (71.6%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_CGTACTAG_CTCTCTAT_cDNA190921_H2_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 631762
                                                                                    II
## ||
         Successfully assigned alignments: 472612 (74.8%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_CGTACTAG_GTAAGGAG_cDNA190921_F2_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 364837
                                                                                    II
## ||
         Successfully assigned alignments : 297895 (81.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7048_CGTACTAG_TATCCTCT_cDNA190921_G2_543P_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 713441
                                                                                    II
         Successfully assigned alignments: 545100 (76.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_CGTACTAG_TCTCTCCG_cDNA190921_A2_543P_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 506493
         Successfully assigned alignments : 406743 (80.3\%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_CTCTCTAC_AAGGAGTA_cDNA190921_D7_660R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 973516
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 818138 (84.0%)
                                                                                    | |
## ||
         Running time: 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_CTCTCTAC_ACTGCATA_cDNA190921_E7_660R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 887662
                                                                                    II
         Successfully assigned alignments: 741630 (83.5%)
## ||
                                                                                    П
## ||
         Running time : 0.06 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_CTCTCTAC_CGTCTAAT_cDNA190921_B7_660R_d0_L001 ...
         Paired-end reads are included.
         Total alignments: 1208207
                                                                                    II
## ||
         Successfully assigned alignments: 925115 (76.6%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_CTCTCTAC_CTAAGCCT_cDNA190921_C7_660R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 579472
## ||
         Successfully assigned alignments: 467734 (80.7%)
                                                                                    II
## ||
         Running time : 0.04 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7048_CTCTCTAT_cDNA190921_H7_637R_d0_L001 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1042634
                                                                                    \Pi
## ||
         Successfully assigned alignments: 821223 (78.8%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_CTCTCTAC_GTAAGGAG_cDNA190921_F7_637R_d0_L001 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 491339
                                                                                    II
## ||
         Successfully assigned alignments: 400935 (81.6%)
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    | |
## || Process BAM file lane7048_CTCTCTAC_TATCCTCT_cDNA190921_G7_637R_d0_L001 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 977173
                                                                                    II
## ||
         Successfully assigned alignments: 811544 (83.1%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.06 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7048_CTCTCTAC_TCTCTCCG_cDNA190921_A7_660R_d0_L001 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 281054
                                                                                    II
         Successfully assigned alignments: 211988 (75.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.02 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_GCTCATGA_AAGGAGTA_cDNA190921_D11_660R_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 1980761
         Successfully assigned alignments : 1359070 (68.6%)
## ||
                                                                                    II
## ||
         Running time: 0.11 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_GCTCATGA_ACTGCATA_cDNA190921_E11_660R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
         Total alignments: 1402226
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 1149008 (81.9%)
                                                                                    | |
## ||
         Running time: 0.09 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_GCTCATGA_CGTCTAAT_cDNA190921_B11_660R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 4123423
                                                                                    II
         Successfully assigned alignments: 3415457 (82.8%)
## ||
                                                                                    П
## ||
         Running time : 0.23 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_GCTCATGA_CTAAGCCT_cDNA190921_C11_660R_d42_L0 ...
         Paired-end reads are included.
         Total alignments: 4406060
                                                                                    II
## ||
         Successfully assigned alignments: 3584407 (81.4%)
## ||
                                                                                    II
## ||
         Running time: 0.25 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_GCTCATGA_CTCTCTAT_cDNA190921_H11_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 2374765
                                                                                    | |
## ||
         Successfully assigned alignments: 1922595 (81.0%)
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7048_GCTCATGA_GTAAGGAG_cDNA190921_F11_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 1194961
                                                                                    \Pi
## ||
         Successfully assigned alignments: 940130 (78.7%)
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_GCTCATGA_TATCCTCT_cDNA190921_G11_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 1700378
                                                                                    II
## ||
         Successfully assigned alignments: 1311018 (77.1%)
                                                                                    II
## ||
         Running time : 0.10 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_GCTCATGA_TCTCTCCG_cDNA190921_A11_660R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    II
## ||
         Total alignments: 1471012
                                                                                    II
## ||
         Successfully assigned alignments : 1184568 (80.5%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.08 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7048_GGACTCCT_AAGGAGTA_cDNA190921_D5_637R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 547485
                                                                                    II
         Successfully assigned alignments: 458183 (83.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_GGACTCCT_ACTGCATA_cDNA190921_E5_637R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 537388
         Successfully assigned alignments : 443192 (82.5\%)
## ||
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_GGACTCCT_CGTCTAAT_cDNA190921_B5_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | | |
         Total alignments: 635484
## ||
                                                                                    II
         Successfully assigned alignments : 525751 (82.7%)
## ||
                                                                                    | |
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_GGACTCCT_CTAAGCCT_cDNA190921_C5_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 674242
                                                                                    II
         Successfully assigned alignments: 572200 (84.9%)
## ||
                                                                                    П
## ||
         Running time : 0.04 minutes
                                                                                    II
## ||
## || Process BAM file lane7048_GGACTCCT_CTCTCTAT_cDNA190921_H5_637R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 859870
                                                                                    II
## ||
         Successfully assigned alignments: 692283 (80.5%)
## ||
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_GGACTCCT_GTAAGGAG_cDNA190921_F5_637R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 485868
## ||
         Successfully assigned alignments: 402325 (82.8%)
                                                                                    II
         Running time : 0.04 minutes
## ||
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7048_GGACTCCT_TATCCTCT_cDNA190921_G5_637R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 899794
                                                                                    \Pi
## ||
         Successfully assigned alignments: 757413 (84.2%)
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_GGACTCCT_TCTCTCCG_cDNA190921_A5_637R_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 754349
                                                                                    II
## ||
         Successfully assigned alignments: 602195 (79.8%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    11
## || Process BAM file lane7048_GTAGAGGA_AAGGAGTA_cDNA190921_D10_660R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1321028
                                                                                    II
## ||
         Successfully assigned alignments: 1111751 (84.2%)
                                                                                    \prod
## ||
## ||
         Running time : 0.08 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7048_GTAGAGGA_ACTGCATA_cDNA190921_E10_660R_d42_L0 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments : 1390221
                                                                                    II
         Successfully assigned alignments: 1177123 (84.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.08 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_GTAGAGGA_CGTCTAAT_cDNA190921_B10_660R_d42_L0 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 2527937
         Successfully assigned alignments : 2011839 (79.6%)
## ||
                                                                                    II
## ||
         Running time: 0.14 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_GTAGAGGA_CTAAGCCT_cDNA190921_C10_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 1474762
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 1214322 (82.3%)
                                                                                    | |
## ||
         Running time: 0.08 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_GTAGAGGA_CTCTCTAT_cDNA190921_H10_660R_d42_L0 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 1877788
                                                                                    II
         Successfully assigned alignments: 1554223 (82.8%)
## ||
                                                                                    П
## ||
         Running time : 0.11 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_GTAGAGGA_GTAAGGAG_cDNA190921_F10_660R_d42_L0 ...
         Paired-end reads are included.
         Total alignments : 1053493
                                                                                    II
## ||
         Successfully assigned alignments: 741339 (70.4%)
## ||
                                                                                    II
## ||
         Running time: 0.06 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_GTAGAGGA_TATCCTCT_cDNA190921_G10_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 986277
## ||
         Successfully assigned alignments: 778746 (79.0%)
                                                                                    II
## ||
         Running time : 0.06 minutes
                                                                                    \prod
                                                                                    \Pi
## || Process BAM file lane7048_GTAGAGGA_TCTCTCCG_cDNA190921_A10_660R_d42_L0 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
## ||
         Total alignments: 2324178
                                                                                    \Pi
## ||
         Successfully assigned alignments: 1977353 (85.1%)
                                                                                    II
## ||
         Running time : 0.13 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048 TAAGGCGA AAGGAGTA cDNA190921 D1 562K d42 L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 419929
                                                                                    II
## ||
         Successfully assigned alignments: 322393 (76.8%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_TAAGGCGA_ACTGCATA_cDNA190921_E1_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 438278
                                                                                    II
## ||
         Successfully assigned alignments : 349488 (79.7%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.03 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7048_TAAGGCGA_CGTCTAAT_cDNA190921_B1_562K_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 626651
                                                                                    II
         Successfully assigned alignments: 499166 (79.7%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_TAAGGCGA_CTAAGCCT_cDNA190921_C1_562K_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 539104
         Successfully assigned alignments : 415338 (77.0%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_TAAGGCGA_CTCTCTAT_cDNA190921_H1_543P_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 501431
                                                                                    II
## ||
## ||
         Successfully assigned alignments: 392208 (78.2%)
                                                                                    | |
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_TAAGGCGA_GTAAGGAG_cDNA190921_F1_543P_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
                                                                                    II
## ||
         Total alignments: 473648
         Successfully assigned alignments: 354795 (74.9%)
## ||
                                                                                    П
## ||
         Running time : 0.03 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_TAAGGCGA_TATCCTCT_cDNA190921_G1_543P_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 544721
                                                                                    II
## ||
         Successfully assigned alignments: 410864 (75.4%)
## ||
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_TAAGGCGA_TCTCTCCG_cDNA190921_A1_562K_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
                                                                                    | |
         Total alignments: 465006
## ||
         Successfully assigned alignments: 359045 (77.2%)
                                                                                    II
## ||
         Running time : 0.03 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7048_TAGGCATG_AAGGAGTA_cDNA190921_D6_637R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    \Pi
         Total alignments: 858866
## ||
                                                                                    \Pi
## ||
         Successfully assigned alignments: 712021 (82.9%)
                                                                                    II
         Running time: 0.06 minutes
## ||
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_TAGGCATG_ACTGCATA_cDNA190921_E6_637R_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 668974
                                                                                    II
## ||
         Successfully assigned alignments: 544630 (81.4%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_TAGGCATG_CGTCTAAT_cDNA190921_B6_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 956999
                                                                                    II
## ||
         Successfully assigned alignments : 769723 (80.4%)
                                                                                    \prod
## ||
                                                                                    \prod
## ||
         Running time : 0.06 minutes
## ||
                                                                                    \Pi
## || Process BAM file lane7048_TAGGCATG_CTAAGCCT_cDNA190921_C6_637R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 841210
                                                                                    II
         Successfully assigned alignments: 684778 (81.4%)
                                                                                    \prod
## ||
## ||
         Running time : 0.05 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_TAGGCATG_CTCTCTAT_cDNA190921_H6_637R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
\prod
         Total alignments: 818157
## ||
         Successfully assigned alignments: 655259 (80.1%)
                                                                                    II
## ||
         Running time: 0.05 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_TAGGCATG_GTAAGGAG_cDNA190921_F6_637R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    | |
         Total alignments: 519148
                                                                                    II
## ||
         Successfully assigned alignments: 432042 (83.2%)
                                                                                    | |
## ||
## ||
         Running time: 0.04 minutes
                                                                                    II
## ||
                                                                                    \Pi
## || Process BAM file lane7048_TAGGCATG_TATCCTCT_cDNA190921_G6_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 776686
                                                                                    II
         Successfully assigned alignments: 624182 (80.4%)
## ||
                                                                                    П
## ||
         Running time : 0.05 minutes
                                                                                    II
## ||
## || Process BAM file lane7048_TAGGCATG_TCTCTCCG_cDNA190921_A6_637R_d42_L00 ...
         Paired-end reads are included.
         Total alignments: 1084848
                                                                                    II
## ||
         Successfully assigned alignments: 903954 (83.3%)
## ||
                                                                                    II
## ||
         Running time: 0.07 minutes
                                                                                    \Pi
                                                                                    II
## || Process BAM file lane7048_TCCTGAGC_AAGGAGTA_cDNA190921_D4_637R_d42_L00 ... ||
         Paired-end reads are included.
## ||
                                                                                    II
## ||
         Total alignments: 237081
                                                                                    | |
## ||
         Successfully assigned alignments: 192949 (81.4%)
                                                                                    II
## ||
         Running time : 0.02 minutes
                                                                                    \prod
                                                                                    П
## || Process BAM file lane7048_TCCTGAGC_ACTGCATA_cDNA190921_E4_637R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    \Pi
## ||
         Total alignments: 556811
                                                                                    \Pi
## ||
         Successfully assigned alignments: 448653 (80.6%)
                                                                                    II
## ||
         Running time: 0.04 minutes
                                                                                    П
## ||
                                                                                    11
## || Process BAM file lane7048_TCCTGAGC_CGTCTAAT_cDNA190921_B4_637R_d42_L00 ...
         Paired-end reads are included.
## ||
                                                                                    | | |
## ||
         Total alignments: 519936
                                                                                    II
## ||
         Successfully assigned alignments: 422317 (81.2%)
                                                                                    II
## ||
         Running time: 0.03 minutes
                                                                                    II
## ||
                                                                                    II
## || Process BAM file lane7048_TCCTGAGC_CTAAGCCT_cDNA190921_C4_637R_d42_L00 ... ||
         Paired-end reads are included.
                                                                                    | |
## ||
         Total alignments: 480874
                                                                                    II
## ||
         Successfully assigned alignments : 412476 (85.8%)
                                                                                    \prod
## ||
## ||
         Running time : 0.03 minutes
                                                                                    \Pi
## ||
                                                                                    \Pi
## || Process BAM file lane7048_TCCTGAGC_CTCTCTAT_cDNA190921_H4_637R_d42_L00 ...
         Paired-end reads are included.
                                                                                    \Pi
## ||
## ||
         Total alignments: 542037
                                                                                    II
         Successfully assigned alignments: 432962 (79.9%)
                                                                                    \prod
## ||
## ||
         Running time : 0.04 minutes
                                                                                    \Pi
## ||
                                                                                    | |
## || Process BAM file lane7048_TCCTGAGC_GTAAGGAG_cDNA190921_F4_637R_d42_L00 ... ||
## ||
         Paired-end reads are included.
                                                                                    II
```

```
Total alignments: 487174
                                                                             \Pi
## ||
        Successfully assigned alignments: 437085 (89.7%)
                                                                             II
## ||
        Running time: 0.03 minutes
                                                                             II
## ||
                                                                             II
## || Process BAM file lane7048_TCCTGAGC_TATCCTCT_cDNA190921_G4_637R_d42_L00 ...
        Paired-end reads are included.
## ||
                                                                             | | |
        Total alignments: 589990
## ||
                                                                             II
        Successfully assigned alignments: 480118 (81.4%)
## ||
                                                                             | |
## ||
        Running time: 0.04 minutes
                                                                             \Pi
## ||
                                                                             | |
## || Process BAM file lane7048_TCCTGAGC_TCTCTCCG_cDNA190921_A4_637R_d42_L00 ...
        Paired-end reads are included.
## ||
                                                                             | |
        Total alignments: 503888
## ||
                                                                             II
        Successfully assigned alignments: 412943 (82.0%)
## ||
                                                                             | | |
## ||
        Running time : 0.04 minutes
                                                                             II
## ||
                                                                             П
                                                                             \Pi
## || Write the final count table.
## || Write the read assignment summary.
                                                                             П
                                                                             \Pi
## \\-----//
```

## save(counts, file = "data/Rsubread\_counts.RData")

## sessionInfo()

```
## R version 3.6.1 (2019-07-05)
## Platform: x86 64-pc-linux-gnu (64-bit)
## Running under: CentOS Linux 7 (Core)
##
## Matrix products: default
         /bi/apps/R/3.6.1/lib64/R/lib/libRblas.so
## LAPACK: /bi/apps/R/3.6.1/lib64/R/lib/libRlapack.so
## locale:
## [1] LC_CTYPE=en_GB.UTF-8
                                  LC_NUMERIC=C
   [3] LC_TIME=en_GB.UTF-8
                                  LC_COLLATE=en_GB.UTF-8
## [5] LC_MONETARY=en_GB.UTF-8
                                  LC_MESSAGES=en_GB.UTF-8
## [7] LC PAPER=en GB.UTF-8
                                  LC NAME=C
## [9] LC ADDRESS=C
                                  LC TELEPHONE=C
## [11] LC_MEASUREMENT=en_GB.UTF-8 LC_IDENTIFICATION=C
## attached base packages:
## [1] stats
                graphics grDevices utils
                                             datasets methods
                                                                  base
## other attached packages:
## [1] Rsubread_2.0.0
##
## loaded via a namespace (and not attached):
## [1] compiler_3.6.1 magrittr_1.5
                                       formatR_1.7
                                                       tools_3.6.1
## [5] htmltools_0.4.0 yaml_2.2.0
                                       Rcpp_1.0.3
                                                       stringi_1.4.3
## [9] rmarkdown_2.0 knitr_1.26
                                       stringr_1.4.0
                                                       xfun_0.11
## [13] digest_0.6.23
                       rlang_0.4.10
                                       evaluate_0.14
```