## Sheet1

```
gag raw sequences.tsv
PBMC
                         LN
                              7 18806 [29.53%] RB
                                                    7 24497 [38.47%] PL
                                                                         7 20373 [31.99%]
        7
               0 [%]
PBMC
       10 21811 [39.96%] LN 10
                                    0 [NaN%] RB
                                                  10 21230 [38.89%] PL
                                                                       10 11545 [21.15%]
PBMC
       14 20655 [23.67%] LN 14 21809 [24.99%] RB
                                                  14 20194 [23.14%] PL
                                                                        14 24616 [28.21%]
PBMC
       28 18151 [13.61%] LN 28 18726 [14.04%] RB
                                                  28 23179 [17.38%] PL
                                                                        28 73348 [54.98%]
PBMC
       56 17847 [19.47%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                          0 [NaN%] PL
                                                                        56 73822 [80.53%]
PBMC
                                                          0 [NaN%] PL
       84 98657 [83.53%] LN 84
                                    0 [NaN%] RB
                                                  84
                                                                        84 19451 [16.47%]
PBMC 168 75911 [82%]
                         LN 168
                                    0 [NaN%] RB 168 16660 [18%]
                                                                    PL 168
                                                                               0 [NaN%]
gag raw sequences.tsv
                              7 17873 [29.11%] RB
                                                    7 23607 [38.46%] PL
PBMC
        7
               0 [%]
                         LN
                                                                         7 19908 [32.43%]
PBMC
       10 20921 [40.14%] LN 10
                                    0 [NaN%] RB
                                                  10 19933 [38.24%] PL
                                                                        10 11272 [21.62%]
PBMC
       14 19932 [23.58%] LN 14 20959 [24.79%] RB
                                                  14 19420 [22.97%] PL
                                                                        14 24232 [28.66%]
PBMC
       28 17443 [13.48%] LN 28 17750 [13.72%] RB
                                                  28 22293 [17.23%] PL
                                                                        28 71886 [55.57%]
PBMC
       56 17288 [19.28%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                          0 [NaN%] PL
                                                                        56 72364 [80.72%]
PBMC
       84 98430 [83.82%] LN 84
                                    0 [NaN%] RB
                                                  84
                                                          0 [NaN%] PL
                                                                        84 18999 [16.18%]
PBMC 168 75580 [82.97%] LN 168
                                    0 [NaN%] RB 168 15515 [17.03%] PL 168
                                                                               0 [NaN%]
gag raw sequences.tsv
PBMC
        7
               0 [%]
                         LN
                              7 16006 [28.03%] RB
                                                    7 22257 [38.97%] PL
                                                                         7 18844 [33%]
PBMC
       10 18776 [39.12%] LN
                            10
                                    0 [NaN%] RB
                                                  10 18614 [38.79%] PL
                                                                        10 10601 [22.09%]
PBMC
       14 17918 [23.08%] LN 14 18648 [24.02%] RB
                                                  14 18154 [23.38%] PL
                                                                        14 22922 [29.52%]
PBMC
       28 15749 [13.16%] LN 28 16176 [13.52%] RB
                                                  28 20569 [17.19%] PL
                                                                        28 67190 [56.14%]
PBMC
       56 15775 [18.8%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                          0 [NaN%] PL
                                                                        56 68124 [81.2%]
PBMC
       84 82920 [82.94%] LN 84
                                                          0 [NaN%] PL
                                                                        84 17050 [17.06%]
                                    0 [NaN%] RB
                                                  84
PBMC 168 61316 [84.1%] LN 168
                                    0 [NaN%] RB 168 11590 [15.9%] PL 168
                                                                               0 [NaN%]
gag raw sequences.tsv
PBMC
                                 1867 [43.61%] RB
               0 [%]
                         LN
                              7
                                                       1350 [31.53%] PL
                                                                         7
                                                                            1064 [24.85%]
PBMC
       10 2145 [51.87%] LN
                             10
                                    0 [NaN%] RB
                                                  10
                                                      1319 [31.9%] PL
                                                                        10
                                                                             671 [16.23%]
PBMC
       14 2014 [29.18%] LN
                            14
                                 2311 [33.49%] RB
                                                  14
                                                       1266 [18.35%] PL
                                                                        14
                                                                            1310 [18.98%]
PBMC
       28 1694 [17.49%] LN 28
                                 1574 [16.25%] RB
                                                  28
                                                       1724 [17.8%] PL
                                                                        28
                                                                            4696 [48.47%]
PBMC
       56 1513 [26.3%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                          0 [NaN%] PL
                                                                        56
                                                                            4240 [73.7%]
                                                          0 [NaN%] PL 84
PBMC
       84 15510 [88.84%] LN 84
                                    0 [NaN%] RB
                                                  84
                                                                            1949 [11.16%]
PBMC 168 14264 [78.42%] LN 168
                                    0 [NaN%] RB 168
                                                      3925 [21.58%] PL 168
                                                                               0 [NaN%]
gag aligned sequences.tsv
PBMC
                              7 15380 [29.09%] RB
                                                    7 20326 [38.44%] PL
                                                                         7 17168 [32.47%]
               0 [%]
                         LN
                                                                        10 8561 [18.98%]
PBMC
       10 17464 [38.71%] LN 10
                                    0 [NaN%] RB
                                                  10 19089 [42.31%] PL
PBMC
       14 17118 [23.49%] LN 14 17096 [23.46%] RB
                                                  14 17128 [23.5%] PL
                                                                        14 21545 [29.56%]
PBMC
       28 13085 [12.19%] LN 28 13395 [12.48%] RB
                                                  28 20261 [18.88%] PL
                                                                        28 60594 [56.45%]
PBMC
       56 14709 [19.09%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                          0 [NaN%] PL
                                                                        56 62355 [80.91%]
                                                          0 [NaN%] PL 84 16022 [14.17%]
PBMC
       84 97018 [85.83%] LN 84
                                    0 [NaN%] RB
                                                  84
                                    0 [NaN%] RB 168 15092 [16.79%] PL 168
PBMC 168 74793 [83.21%] LN 168
                                                                               0 [NaN%]
gag aligned sequences.tsv
PBMC
                              7 15380 [29.09%] RB
                                                    7 20326 [38.44%] PL
                                                                         7 17168 [32.47%]
               0 [%]
                         LN
PBMC
       10 17464 [38.71%] LN
                            10
                                    0 [NaN%] RB
                                                  10 19089 [42.31%] PL
                                                                        10 8561 [18.98%]
PBMC
       14 17118 [23.49%] LN 14 17096 [23.46%] RB
                                                  14 17128 [23.5%] PL
                                                                        14 21545 [29.56%]
PBMC
       28 13085 [12.19%] LN 28 13395 [12.48%] RB
                                                  28 20261 [18.88%] PL
                                                                        28 60594 [56.45%]
PBMC
                                                  56
       56 14709 [19.09%] LN 56
                                    0 [NaN%] RB
                                                          0 [NaN%] PL
                                                                        56 62355 [80.91%]
PBMC
       84 97018 [85.83%] LN 84
                                    0 [NaN%] RB
                                                  84
                                                          0 [NaN%] PL 84 16022 [14.17%]
```

## Sheet1

```
0 [NaN%] RB 168 15092 [16.79%] PL 168
PBMC 168 74793 [83.21%] LN 168
                                                                                0 [NaN%]
gag_aligned_sequences.tsv
PBMC
                              7 15125 [29.16%] RB
                                                    7 19939 [38.44%] PL
                                                                          7 16812 [32.41%]
               0 [%]
                         LN
PBMC
       10 16792 [38.31%] LN
                            10
                                    0 [NaN%] RB
                                                   10 18667 [42.59%] PL
                                                                         10 8371 [19.1%]
PBMC
       14 16341 [23.18%] LN 14 16595 [23.54%] RB
                                                   14 16548 [23.47%] PL
                                                                         14 21010 [29.8%]
PBMC
       28 12643 [12.16%] LN 28 13033 [12.54%] RB
                                                   28 19828 [19.07%] PL
                                                                        28 58464 [56.23%]
PBMC
                                                   56
                                                          0 [NaN%] PL
       56 14275 [19.1%] LN 56
                                    0 [NaN%] RB
                                                                        56 60460 [80.9%]
PBMC
       84 96329 [86.11%] LN 84
                                    0 [NaN%] RB
                                                   84
                                                          0 [NaN%] PL
                                                                        84 15537 [13.89%]
PBMC 168 72978 [83.28%] LN 168
                                    0 [NaN%] RB 168 14654 [16.72%] PL 168
                                                                                0 [NaN%]
gag_aligned_sequences.tsv
PBMC
                         LN
                                  255 [25.55%] RB
                                                        387 [38.78%] PL
                                                                              356 [35.67%]
        7
               0 [%]
                              7
                                                    7
                                                                          7
PBMC
       10
             672 [52.34%] LN
                                    0 [NaN%] RB
                                                        422 [32.87%] PL
                                                                              190 [14.8%]
                             10
                                                   10
                                                                         10
PBMC
       14
             777 [32.47%] LN
                             14
                                  501 [20.94%] RB
                                                   14
                                                        580 [24.24%] PL
                                                                         14
                                                                              535 [22.36%]
PBMC
       28
             442 [13.13%] LN 28
                                  362 [10.75%] RB
                                                   28
                                                        433 [12.86%] PL
                                                                         28
                                                                             2130 [63.26%]
                                                          0 [NaN%] PL
PBMC
       56
             434 [18.63%] LN 56
                                    0 [NaN%] RB
                                                   56
                                                                         56
                                                                             1895 [81.37%]
PBMC
       84
             689 [58.69%] LN 84
                                    0 [NaN%] RB
                                                   84
                                                          0 [NaN%] PL
                                                                        84
                                                                              485 [41.31%]
PBMC 168
           1815 [80.56%] LN 168
                                    0 [NaN%] RB 168
                                                        438 [19.44%] PL 168
                                                                                0 [NaN%]
gag aligned sequences trim.tsv
PBMC
        7
               0 [%]
                         LN
                              7 14530 [29.17%] RB
                                                    7 19010 [38.16%] PL
                                                                          7 16275 [32.67%]
PBMC
       10 16378 [39.24%] LN 10
                                    0 [NaN%] RB
                                                   10 17339 [41.54%] PL
                                                                        10 8025 [19.23%]
PBMC
       14 16175 [23.47%] LN 14 16164 [23.46%] RB
                                                   14 16021 [23.25%] PL
                                                                         14 20550 [29.82%]
PBMC
       28 12361 [12.18%] LN 28 12488 [12.3%] RB
                                                   28 19018 [18.73%] PL
                                                                        28 57649 [56.79%]
PBMC
       56 14064 [19.14%] LN 56
                                    0 [NaN%] RB
                                                          0 [NaN%] PL
                                                   56
                                                                         56 59431 [80.86%]
PBMC
                                                          0 [NaN%] PL
       84 93644 [86.05%] LN 84
                                    0 [NaN%] RB
                                                   84
                                                                         84 15178 [13.95%]
PBMC 168 72184 [83.44%] LN 168
                                    0 [NaN%] RB 168 14328 [16.56%] PL 168
                                                                                0 [NaN%]
gag aligned sequences trim.tsv
PBMC
        7
               0 [%]
                         LN
                              7 14470 [29.12%] RB
                                                    7 18962 [38.16%] PL
                                                                          7 16257 [32.72%]
PBMC
       10 16332 [39.22%] LN 10
                                    0 [NaN%] RB
                                                   10 17294 [41.53%] PL
                                                                        10 8014 [19.25%]
PBMC
       14 16124 [23.46%] LN 14 16102 [23.43%] RB
                                                   14 15993 [23.27%] PL
                                                                         14 20514 [29.85%]
PBMC
       28 12309 [12.15%] LN 28 12447 [12.28%] RB
                                                   28 18969 [18.72%] PL
                                                                        28 57604 [56.85%]
PBMC
       56 13989 [19.07%] LN 56
                                    0 [NaN%] RB
                                                   56
                                                          0 [NaN%] PL
                                                                        56 59383 [80.93%]
PBMC
       84 93643 [86.07%] LN 84
                                    0 [NaN%] RB
                                                   84
                                                          0 [NaN%] PL
                                                                        84 15151 [13.93%]
PBMC 168 72184 [83.67%] LN 168
                                    0 [NaN%] RB 168 14086 [16.33%] PL 168
                                                                                0 [NaN%]
gag_aligned_sequences_trim.tsv
PBMC
        7
               0 [%]
                         LN
                              7 13086 [28.04%] RB
                                                    7 18023 [38.61%] PL
                                                                          7 15567 [33.35%]
PBMC
       10 15008 [38.52%] LN 10
                                    0 [NaN%] RB
                                                   10 16272 [41.76%] PL
                                                                        10 7681 [19.71%]
PBMC
       14 14668 [22.89%] LN
                             14 14768 [23.05%] RB
                                                   14 15113 [23.58%] PL
                                                                         14 19534 [30.48%]
PBMC
       28 11353 [11.95%] LN 28 11536 [12.14%] RB
                                                   28 17694 [18.62%] PL
                                                                        28 54439 [57.29%]
       56 12879 [18.58%] LN 56
PBMC
                                                          0 [NaN%] PL
                                    0 [NaN%] RB
                                                   56
                                                                         56 56455 [81.42%]
PBMC
       84 79011 [85.17%] LN 84
                                    0 [NaN%] RB
                                                   84
                                                          0 [NaN%] PL 84 13753 [14.83%]
                                    0 [NaN%] RB 168 10586 [15.32%] PL 168
PBMC 168 58525 [84.68%] LN 168
                                                                                0 [NaN%]
gag aligned sequences trim.tsv
PBMC
        7
               0 [%]
                         LN
                              7
                                 1384 [45.93%] RB
                                                    7
                                                        939 [31.16%] PL
                                                                         7
                                                                              690 [22.9%]
PBMC
       10 1324 [49.42%] LN 10
                                    0 [NaN%] RB
                                                   10
                                                       1022 [38.15%] PL
                                                                         10
                                                                              333 [12.43%]
                                                                              980 [21.08%]
PBMC
           1456 [31.31%] LN
                                 1334 [28.69%] RB
                                                   14
                                                        880 [18.92%] PL
                                                                         14
       14
                             14
PBMC
                                  911 [14.44%] RB
                                                                        28
       28
            956 [15.16%] LN 28
                                                   28
                                                       1275 [20.22%] PL
                                                                             3165 [50.18%]
PBMC
       56 1110 [27.49%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                          0 [NaN%] PL 56
                                                                            2928 [72.51%]
```

## Sheet1

```
0 [NaN%] RB 84
PBMC
       84 14632 [91.28%] LN 84
                                                         0 [NaN%] PL 84 1398 [8.72%]
PBMC 168 13659 [79.6%] LN 168
                                    0 [NaN%] RB 168
                                                      3500 [20.4%] PL 168
                                                                              0 [NaN%]
gag_aligned_sequences_trim_Complete.tsv
                             7 13391 [28.63%] RB
PBMC
               0 [%]
                        LN
                                                   7 18072 [38.63%] PL
                                                                        7 15316 [32.74%]
PBMC
       10 15106 [38.33%] LN 10
                                    0 [NaN%] RB
                                                  10 16564 [42.03%] PL
                                                                      10 7740 [19.64%]
PBMC
       14 14916 [23.07%] LN 14 15090 [23.34%] RB
                                                  14 15368 [23.77%] PL
                                                                       14 19285 [29.83%]
PBMC
       28 11530 [11.94%] LN 28 11692 [12.11%] RB
                                                  28 17892 [18.53%] PL
                                                                      28 55429 [57.41%]
PBMC
       56 13203 [18.8%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                         0 [NaN%] PL
                                                                       56 57027 [81.2%]
PBMC
       84 90356 [86.39%] LN 84
                                    0 [NaN%] RB
                                                  84
                                                         0 [NaN%] PL 84 14236 [13.61%]
PBMC 168 70351 [83.98%] LN 168
                                    0 [NaN%] RB 168 13423 [16.02%] PL 168
                                                                              0 [NaN%]
gag aligned sequences trim Complete.tsv
PBMC
                        LN
                             7 13391 [28.63%] RB
                                                   7 18072 [38.63%] PL
                                                                         7 15316 [32.74%]
               0 [%]
PBMC
       10 15106 [38.33%] LN 10
                                    0 [NaN%] RB
                                                  10 16564 [42.03%] PL
                                                                       10 7740 [19.64%]
PBMC
       14 14916 [23.07%] LN 14 15090 [23.34%] RB
                                                  14 15368 [23.77%] PL
                                                                       14 19285 [29.83%]
PBMC
       28 11530 [11.94%] LN 28 11692 [12.11%] RB
                                                  28 17892 [18.53%] PL
                                                                       28 55429 [57.41%]
PBMC
       56 13203 [18.8%] LN 56
                                                  56
                                                         0 [NaN%] PL
                                                                       56 57027 [81.2%]
                                    0 [NaN%] RB
PBMC
       84 90356 [86.39%] LN 84
                                                         0 [NaN%] PL 84 14236 [13.61%]
                                    0 [NaN%] RB
                                                  84
PBMC 168 70351 [83.98%] LN 168
                                    0 [NaN%] RB 168 13423 [16.02%] PL 168
                                                                              0 [NaN%]
gag aligned sequences trim Complete.tsv
PBMC
               0 [%]
                        LN
                             7 12447 [27.6%] RB
                                                   7 17588 [39.01%] PL
                                                                        7 15055 [33.39%]
        7
PBMC
                                    0 [NaN%] RB
                                                                       10 7597 [19.92%]
       10 14534 [38.1%] LN 10
                                                  10 16014 [41.98%] PL
PBMC
       14 14302 [22.83%] LN 14 14365 [22.93%] RB
                                                  14 15066 [24.05%] PL
                                                                       14 18920 [30.2%]
PBMC
       28 11036 [11.77%] LN 28 11213 [11.96%] RB
                                                  28 17101 [18.23%] PL
                                                                       28 54441 [58.05%]
PBMC
       56 12572 [18.32%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                         0 [NaN%] PL
                                                                        56 56056 [81.68%]
PBMC
       84 85457 [86.43%] LN 84
                                    0 [NaN%] RB
                                                  84
                                                         0 [NaN%] PL 84 13421 [13.57%]
PBMC 168 58796 [84.97%] LN 168
                                    0 [NaN%] RB 168 10402 [15.03%] PL 168
                                                                              0 [NaN%]
gag aligned sequences trim Complete.tsv
PBMC
               0 [%]
                        LN
                             7
                                  944 [55.89%] RB
                                                   7
                                                       484 [28.66%] PL
                                                                             261 [15.45%]
PBMC
       10
            572 [45.22%] LN 10
                                    0 [NaN%] RB
                                                  10
                                                       550 [43.48%] PL
                                                                        10
                                                                             143 [11.3%]
PBMC
            614 [30.61%] LN 14
                                                       302 [15.05%] PL
       14
                                  725 [36.14%] RB
                                                  14
                                                                        14
                                                                             365 [18.2%]
PBMC
       28
            494 [17.95%] LN 28
                                  479 [17.41%] RB
                                                  28
                                                       791 [28.74%] PL
                                                                       28
                                                                             988 [35.9%]
PBMC
       56
            631 [39.39%] LN 56
                                    0 [NaN%] RB
                                                  56
                                                         0 [NaN%] PL
                                                                       56
                                                                            971 [60.61%]
PBMC
       84
           4899 [85.74%] LN 84
                                    0 [NaN%] RB
                                                  84
                                                         0 [NaN%] PL
                                                                       84
                                                                            815 [14.26%]
PBMC 168 11555 [79.27%] LN 168
                                                      3021 [20.73%] PL 168
                                    0 [NaN%] RB 168
                                                                              0 [NaN%]
```