Measure establishment efficiency of OriP, DS, FR-neomycin plasmids in 3 293/EBNA-1 clones that express different amounts of EBNA-1

1. Measure cloning efficiency of 293 cells:

   a. dilute 293 cells to 5 cells /ml
   b. add 200ul to each well of 4 96well plates. So I need 0.2X3X96X4=76.8 ml of 5cell/ml 293.
   c. After two weeks, count the number of wells with no cells growing—P(0)=#of empty wells/96X4----e^{-m}=p(0), then m=cloning efficiency

   Note: It is 31% from Liz's data.

2. Measure establishment efficiency :

a. Plamids:
   1591: oriP-neo
   1683: FR-neo
   1685: DS-neo
   1590: neo with no ori.
   David Mackey made the above plasmids. But his descriptions of these plasmids tell nothing about how he made it!

   2510: CMV-RFP
b. experimental procedure:

1. grow up 8 dishes for each of the 3 cell lines to 20-50% confluency.
2. Transfect equalmolar of each of the plasmids plus 2510 into the each of the 3 cell lines. Each transfection is done in duplicate.
3. 2 days later, count the transfection efficiency. Plate out 2 10^5, 10^4 and 10^3 cells per 15 cm dish under 200ug/ml G418. Thus there are total of 72 15cm dishes.