Comparing the different between strain from Prof. Huang(\triangle cheZ) and Prof. Yang, especially the motility.

Inoculating two strains to the inclined plane tube and plate with different ratio of agar, then inoculated in 37° C for 10h. The results didn't show the difference clearly.

Check out why the results go by contraries. PCR to see whether there are cheZ in Yang's and \triangle cheZ strains, streaking plating to see their growth rate. It showed that there is cheZ in Yang's strain and no cheZ in \triangle cheZ; Yang's strain grow two hours slower than \triangle cheZ.

Comparing the motility of \triangle cheZ and MG1655. With tryptone broth containing 0.3% agar, MG1655 diffuse about 1cm after inoculated in 37°C for 24h and \triangle cheZ stay still.

Contruct the empty vector with J23100 promoter and transform it into Δ cheZ.

2012-7-9-2012-7-31

Check out whether cheZ can be regulate and control.

Transform plasmids with J23112、J23113、J23114、J23110、J23108、J23104 and J23100 to trans5 α , mini prep, digest the plasmid with Spel and Pstl, and then connect digest product and cheZ. Transform the product to Δ cheZ.

2012-8-1---2012-8-28

Check out whether cheZ can be regulate and control.

It turns out to be that pouring 4ml medium with 0.25% agar into a Petri-dish (5.5cm) and $2\mu L$ diluted cell culture spotted at the center of the semi-solid medium may have the better results.

2012-8-15-2012-8-24

Construct the J23100+GFP plasmid.

2012-8-26

Transform LexA408-VVD, RecA408-cheZ into Δ cheZ.

2012-8-27

Streaking plating and inoculated at 30° C. Picking colonies and shaking at 30° C overnight. Diluted and shaking until OD0.4—0.6. Diluted and spotted in the center of the semi-solid medium. Three plates inoculated under the blue light and three in the dark. After 12h, the result is so bad for I can't tell colony from others.

2012-9-1-2012-9-4

I tried another medium to perform the motility experiment, expecting to get obvious results.

However, it failed again, mostly because there is little water for bacterial to swim.

2012-9-4---2012-9-5

Using Huang's protocol, but OD 0.4—0.6, only dry the plate for 1h. Bless myself.