Experiments

Wednesday, July 01, 2015
4:21 PM

Purpose	Group	Experiments	Results	Conclusions/Notes	Next steps
ACT cloning	Leon	Grow cultures of yebF	Grew	High concentration with miniprep	Cloning stuff together

Experiments

Wednesday, July 01, 2015
4:21 PM

Purpose	Group	Experiments	Results	Conclusions/Notes	Next steps
YebF promotion	Leon	Grow cultures of yebF	Grew	High concentration with miniprep	Cloning stuff together

Experiments

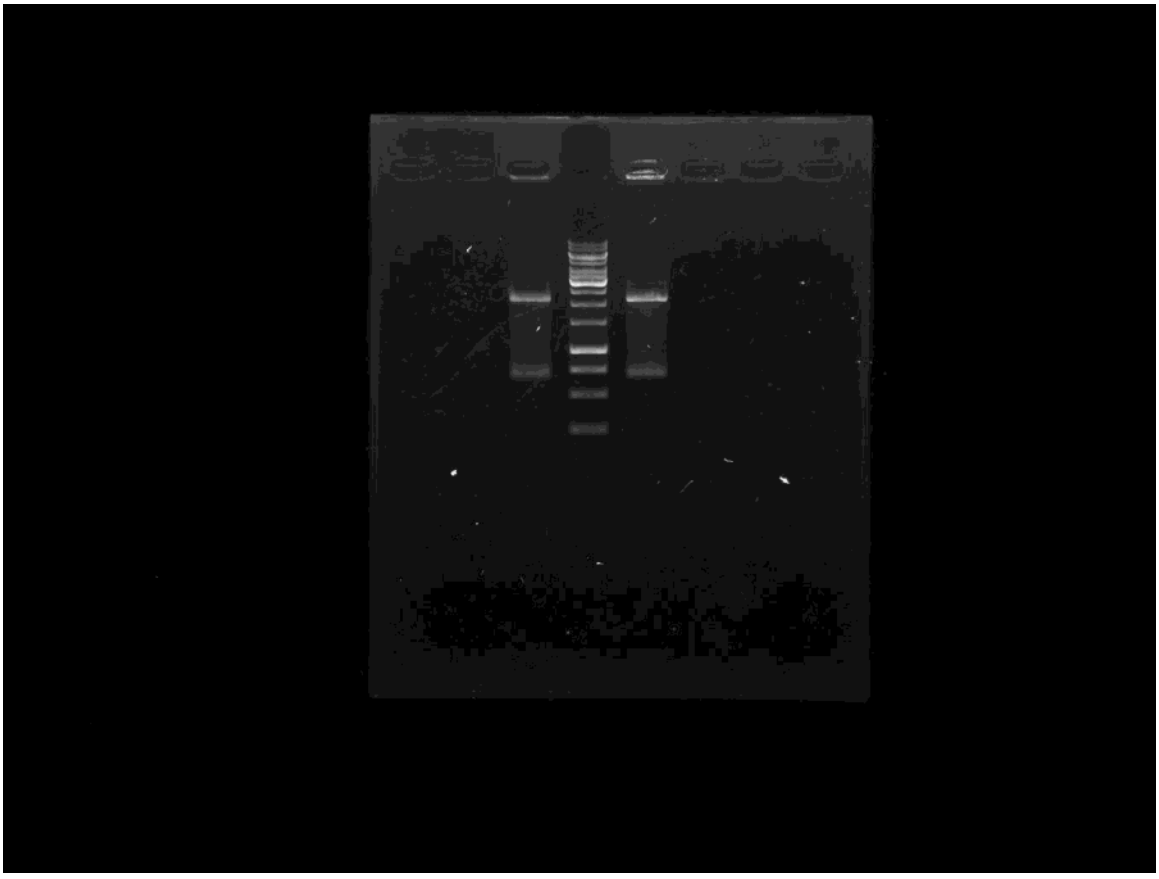
2015年7月17日
上午 09:30

Group	Experiments	Results	Conclusions/Notes	Next steps
Phillip	T4 Testing	You gotta be patient and wait for it man! Wait for the base drop! I mean the buffers.	Continued the steps towards ligation. Days seem dim, that's because the weather is actually cloudy today. Finished digestion and ran gels for the products for the pTempSens +RBS and also T4+Term.	The real deal. Ligation.
Phillip	Transferred stuff from TAS NYMU.			

Pictures

2015年7月17日
下午 12:25

Gel Pictures



T4

Experiments

2015年7月24日
下午 04:43

Group	Experiments	Results	Conclusions/Notes	Next steps
Phillip	Measured and rechecked the concentrations of a lot of the purified plasmid samples that we had. Please refer to the page "Checking with NYMU Nanodrop"	The results of this nanodrop concluded with the current NYMU Nanodrop.		
Phillip				

Checking with NYMU Nanodrop

Friday, July 24, 2015
5:54 PM

	Original Concentration as stated on the side of the centrifuge tube	Remeasured Concentration as stated on the side of the centifuge	Difference	Percent Difference
T4 Term		22.4		
pTempSens +RBS		13.9		
Temp RBS	95.2	68.6	26.6	0.279411765
T4 Term 1	415.3	201.2	214.1	0.515530941
T4 Term 2	461.8	197.1	264.7	0.573191858
T4 Term 3	346.7	325.7	21	0.060571099
ACT EXSP	191	-19	210	1.09947644
GFP	104.4	94.5	9.9	0.094827586

Research

Friday, July 24, 2015
6:56 PM

Part:BBa_K1510010

http://parts.igem.org/Part:BBa_K1510010:Experience

This page uses red fluorescent protein to test if YebF can successful transfer the protein outside of the cell by actually fusing the RFP at the C-terminal of the protein and testing if the signal protein works by measuring culture supernatant.

Experiments

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Group	Experiments	Results	Conclusions/Notes	Next steps
Phillip	Going to chill off on experiments because I'll have to redo the past week's experiments again. Another failure is just a step towards success.			

Additional Research

2015年7月27日
上午 10:34

http://www.diabetesforecast.org/2013/jul/making-insulin.html?referrer=https://www.google.com.tw/
The following article talks about how scientists engineered genetically to change pig insulin that differed by one amino acid to become the human version of insulin. Our model takes a similar approach, but instead we mutate it with 3 amino acids.

https://en.wikipedia.org/wiki/High-performance_liquid_chromatography for purification

There are several problems with insulin as a clinical treatment for diabetes:

- Mode of administration.
- Selecting the 'right' dose and timing. Usually one unit of insulin is ~15grams of CHO.
- Selecting an appropriate insulin preparation (typically on 'speed of onset and duration of action' grounds).
- Adjusting dosage and timing to fit food intake timing, amounts, and types.
- Adjusting dosage and timing to fit exercise undertaken.
- Adjusting dosage, type, and timing to fit other conditions, for instance the increased stress of illness.
- Variability in absorption into the bloodstream via subcutaneous delivery
- The dosage is non-physiological in that a subcutaneous bolus dose of insulin alone is administered instead of combination of insulin and C-peptide being released gradually and directly into the portal vein.
- It is simply a nuisance for patients to inject whenever they eat carbohydrate or have a high blood glucose reading.
- It is dangerous in case of mistake (most especially 'too much' insulin).

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