Thursday 7/30/09

Run gel of digested lambda and T4 killer genes

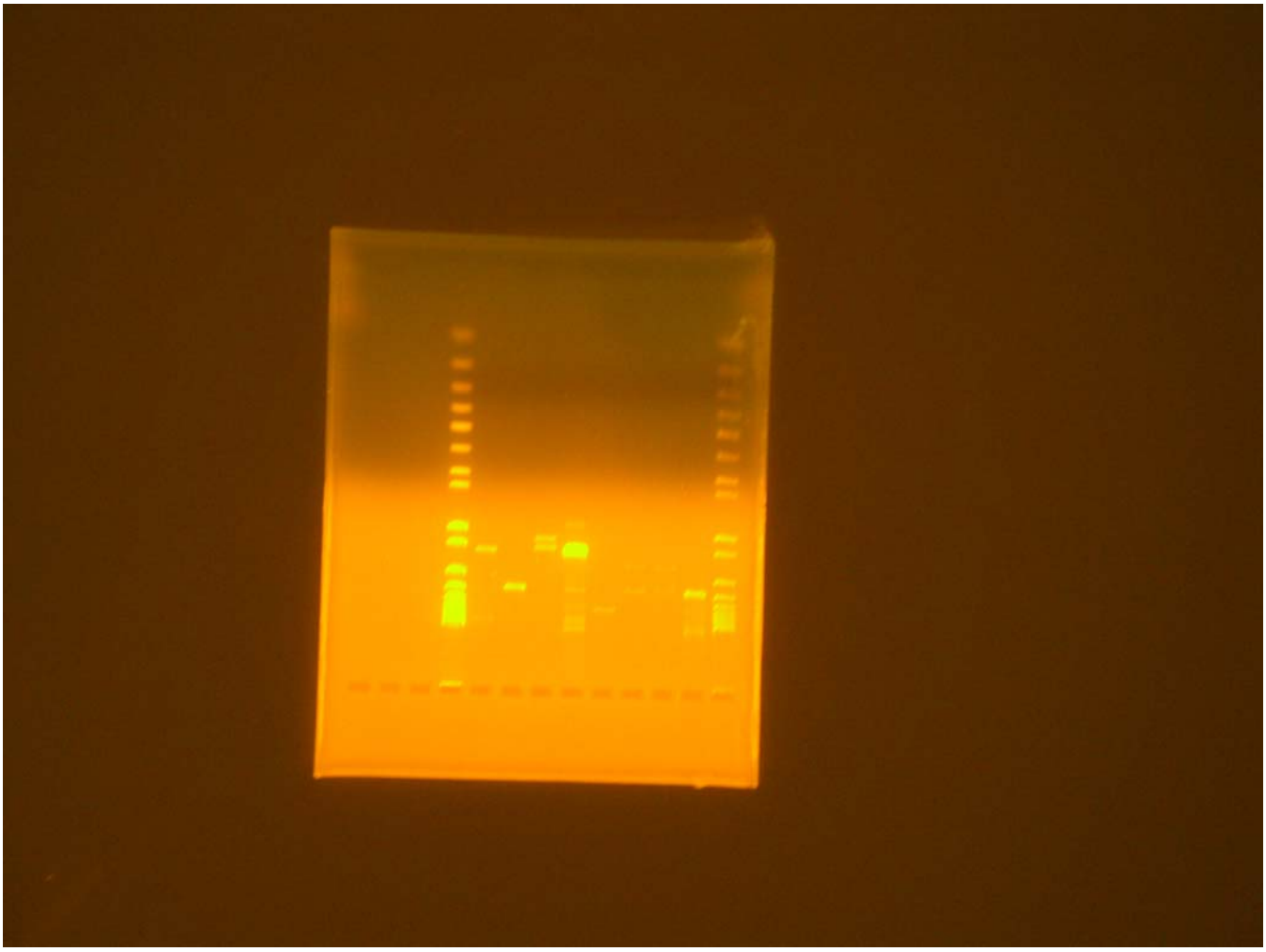
- Nick ran gel of lambda and T4 digest with EcoRI/PstI, EcoRI/XhoI and XhoI only according to the protocol on 7/27/09

Run gel of colony PCR products of the Pu promoter for Probhjyot

- A gel of the 8 replicates of the colony PCR of the Pu promoter were ran according to the protocol on 7/27/09

Results

Gel of Lambda and T4 killer genes digested with EcoRI/PstI, EcoRI/XhoI and XhoI only



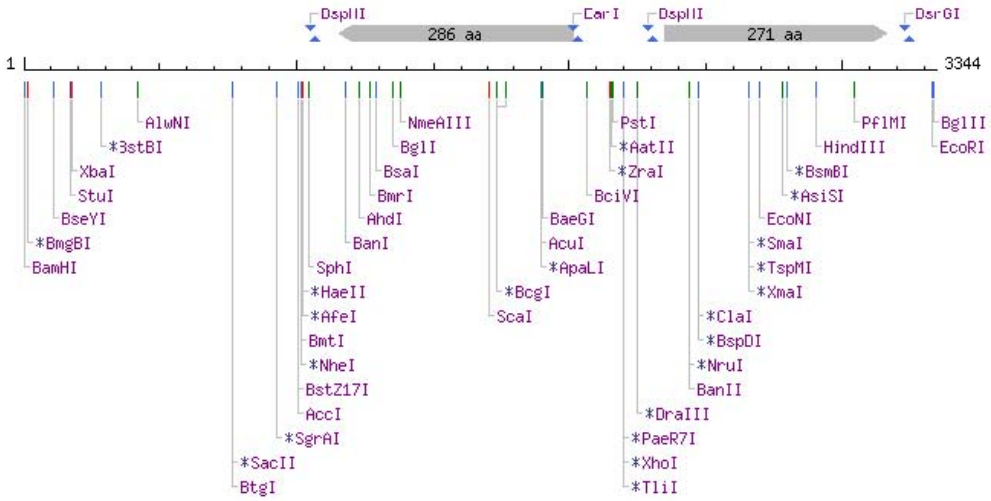
Lane 1: Invitrogen 1 kb plus ladder (far right)
Lane 2: Uncut lambda miniprep plasmid
Lane 3: Lambda EcoRI/PstI
Lane 4: Lambda EcoRI/XhoI
Lane 5: Lambda XhoI only
Lane 6: Uncut T4 miniprep plasmid
Lane 7: T4 EcoRI/PstI
Lane 8: T4 EcoRI/XhoI
Lane 9: T4 XhoI only
Lane 10: Invitrogen 1 kb plus ladder

Expected product lengths

- Lambda
    - Part: 1499 bp
    - Plasmid: 3344 bp
- T4
    - Part: 1785 bp
    - Plasmid: 2079 bp

From NEB cutter2:

Plasmid (BBa_K112954) backbone for lambda:



Location of sites

EcoRI: 3330 bp
PstI: 2157 bp
XhoI: 2197 bp

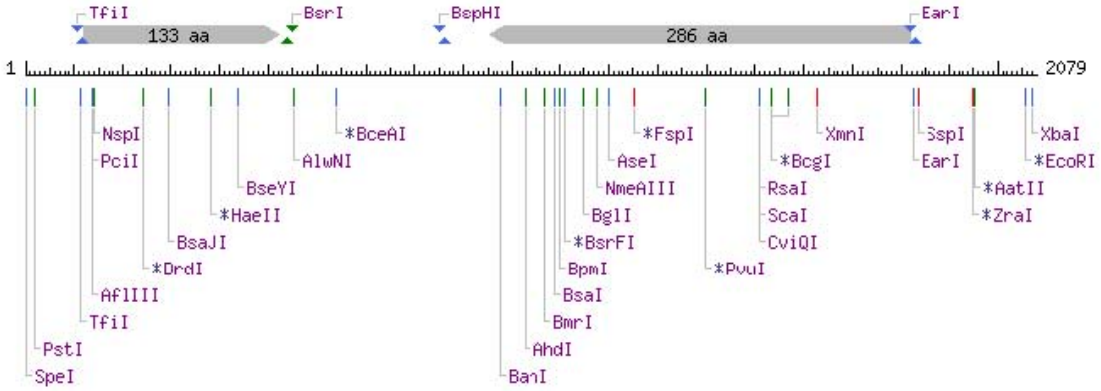
Expected lengths without part on plasmid:

EcoRI/PstI: 1173 bp and 2171 bp
EcoRI/XhoI: 1133 bp and 2211 bp
XhoI: 3344 bp

Expected lengths w/ part directly following EcoRI/BglII prefix

EcoRI/PstI: 1173 bp and 3670 bp
EcoRI/XhoI: 1133 bp and 3710 bp
XhoI: 4843 bp

From NEB cutter2:
Plasmid (SB1A2) backbone for T4 Lysis Device:



Location of sites
EcoRI: 2058 bp
PstI: 16 bp
XhoI: None

From this gel we confirmed that the lambda killer gene has a longer sequence than stated in the registry. The T4 killer gene looks good, however having EcoRI and PstI restriction sites may be hard to work with, need to digest and find other restriction sites (BamHI, SpeI, XbaI)

Gel of Pu primer

A gel was run of Probhyjot's 8 colony PCR reactions for the Pu primer. However, no DNA appeared on the gel.