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| <h1>iGEM2013 – Microbiology –<br/>BMB – SDU</h1>   |                                      |
| <b>Project type:</b> Characterization  | <b>Creation date:</b> 29.08.13       |
| <b>Project title:</b> Growth experiment of construct LacI-PLac-dxs(B.sub) and construct LacI-PLac-dxs(B.sub)-GFP | <b>Written by:</b> SIS               |
| <b>Sub project:</b>  | <b>Performed by:</b> SIS, PRA and MH |

## 1. SOPs in use

iGEM\_SOP\_0024\_v01\_Growth\_experiment

## 2. Purpose

To characterize the cells burden when taken up the plasmid.

### 3. Overview

## 4. Materials required

### Materials in use

| Name | Components (Concentrations) | Manufacturer / Cat. # | Room | Safety considerations |
|------|-----------------------------|-----------------------|------|-----------------------|
|      |                             |                       |      |                       |
|      |                             |                       |      |                       |
|      |                             |                       |      |                       |
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|      |                             |                       |      |                       |

## 5. Other comments

## 6. Experiment history

| Date (YY.MM.DD) | SOPs              | Alterations to SOPs and remarks to experiments   |
|-----------------|-------------------|--|
| 29.30.13        | Growth experiment | <p>The growth experiment was performed on triplets for:</p> <p>1) Pure MG1655</p> <p>2) MG1655 taken up religated pSB1C3 plasmid</p> <p>3) MG1655 taken up pSB1C3-Lacl-Plac-dxs(B.sub)</p> <p>4) MG1655 taken up pSB1C3-Lacl-Plac-dxs(B.sub)-GFP</p> <p>No IPTG was added to the media</p> <p>OD was measured for every 30 min over 8,5 hours.<br/>(see excel document for experimental setup)</p> |
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|                 |                   |  |
|                 |                   |  |
|                 |                   |  |

## 7. Sample specification

## 8. Remarks on setup

## 9. Results and conclusions

### 29.08.13

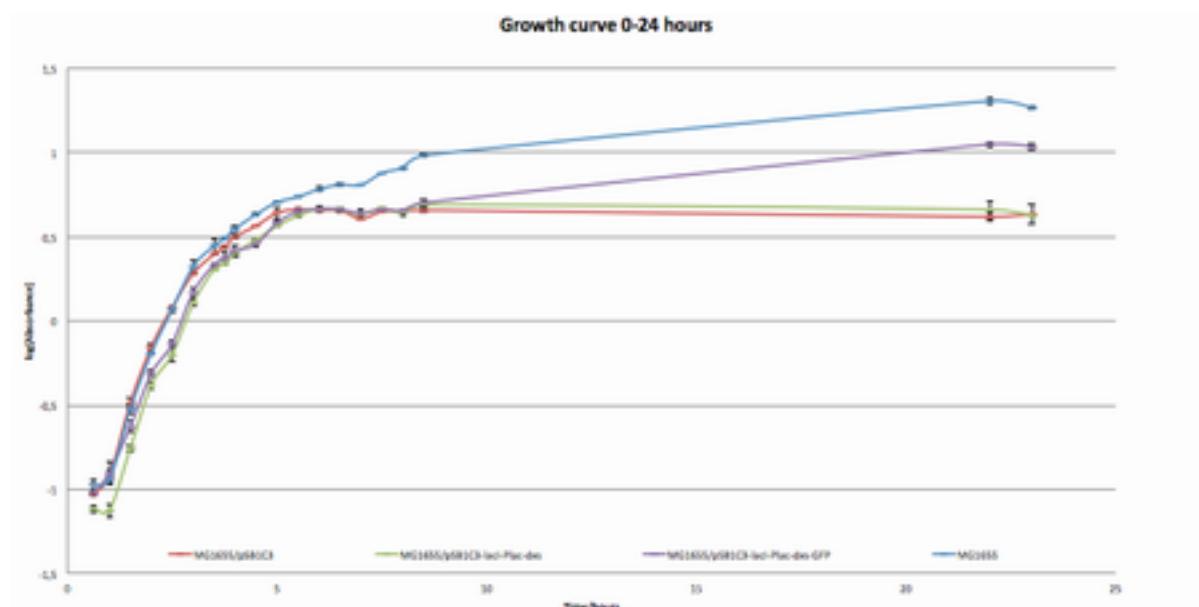
Growth curve:

Blue: MG1655

Red: MG1655/pSB1C3

Green: MG1655/pSB1C3-LacI-PLac-dxs(B.sub)

Purple: MG1655/pSB1C3-LacI-PLac-dxs(B.sub)-GFP



According to the results, it seems as it is a burden for the bacteria to have taken up the plasmid, whether the plasmid contains an insert or not and even though IPTG was not added to the media.

After 24 hours the data shows that bacteria containing the plasmid with GFP fused with dxs(B.sub) have a better growth than bacteria containing ligated plasmid and plasmid without GFP. This results is not as expected.

## 10. Appendices

File name:iGEM2013\_0052\_Protocol\_Growth experiment\_Lacl-PLac-dxs(B.sub) / LacI-PLac-dxs(B.sub)-GFP

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