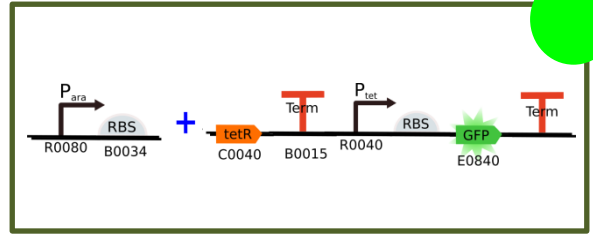


Assembly:

Pa_Term



1st Day:

EXSP Digestion (see **Enzymatic Digestion Protocol**)

| | Part | Size | ng/μl |
|---|-----------|---------|-------|
| 1 | Pa_RBS | 161 bp | 96.9 |
| 2 | tet_E0840 | 1745 bp | 205.0 |

| | Volume to 1,0 μg (μl) | Buffer 10x (μl) | BSA (μl) | Enzyme 1 | Volume (μl) | Enzyme 2 | Volume (μl) | H ₂ O to 20μl (μl) |
|---|-----------------------|-----------------|----------|----------|-------------|----------|-------------|-------------------------------|
| 1 | - | 2 (M) | - | S | 1 | P | 1 | 10.3 |
| 2 | 9.2 | 2 (M) | 2 | X | 1 | P | 1 | 4.8 |

| Final Plasmid | Resistance |
|---------------|------------|
| pSB1A2 | Ampicillin |

Gel purification

- See PureLink® Quick Gel Extraction Kit Invitrogen™ manual
- Quantify digestion products

| Parts | ng/μl |
|-----------|-------|
| Pa_RBS | 7.4 |
| tet_E0840 | 6.7 |

Obs: 260/280 is a quality parameter that tells you if your sample is contaminated with proteins. The greater it is compared to 1 the less contaminants you have.

Ligation (see **Ligation Protocol**)

| | | |
|-----------------------------|---------------|-----|
| Part containing the plasmid | Pa_RBS | 6.7 |
| Insert | tet_E0840 | 18 |
| 10x T4 DNA Buffer | | 3 |
| T4 DNA ligase 1u | | 0.4 |
| H2O to 30µl | | 2 |

Obs: To determinate the amount of DNA necessary we used the following equation

$$\text{Insert ng} = \text{plasmid ng} \times \frac{\text{insert bp}}{\text{plasmid bp}} \times \text{insert: plasmid ratio}$$

- Incubate overnight at 37°C.
- Prepare and sterilize in the autoclave tubes with 6 ml of liquid LB medium.
- Prepare glycerol 40%

2nd Day:

Transformation (see **Transformation Protocol in Escherichia coli DH5-α**)

- Organism: E. coli DH5-α
- Selection: Ampicillin

4th Day:

Confirmation with NotI.