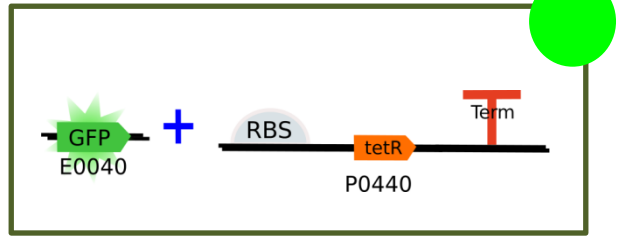


Assembly:

GFP_P0440



1st Day:

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

	Part	Size	$\eta\text{g}/\mu\text{l}$
1	E0040	720 bp	85.9
2	P0440	840 bp	115.4

	Volume to 1,0 μg (μl)	Buffer 10x (μl)	BSA	Enzyme 1	Volume (μl)	Enzyme 2	Volume (μl)	H ₂ O to 20 μl (μl)
1	11.6	2 (M)	-	S	1	P	1	4.3
2	8.7	2 (M)	2	X	1	P	1	5.3

Final Plasmid	Resistance
pSB1A2	ampicillin

Gel purification

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

Parts	$\eta\text{g}/\mu\text{l}$
E0040	8.2
P0440	12.7

Obs: 260/280 in 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	GFP	6 μ l
Insert	P0440	3.5 μ l
10x T4 DNA Buffer		4 μ l
T4 DNA ligase 1u		0.5 μ l
H2O to 20 μ l		6 μ l

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