

<b>iGEM 2016 – SDU</b>	
<b>Title:</b> Fluorescence microscopy	<b>Date issued:</b> 2016.07.04
<b>SOP number:</b> SOP0035	<b>Review date:</b> 2016.10.11
<b>Version number:</b> 01	<b>Written by:</b> Joel Vej-Nielsen and Jakob Rønning

## **1. Purpose**

Qualitative confirmation that biobricks produce PHB

## **2. Area of application**

This procedure is valid for all *E. coli* strains that produce PHB.

### 3. Apparatus and equipment

Apparatus/equipment	Location (Room number)	Check points	Criteria for approval/rejection
Fluorescence microscope	Class 2 lab		
Waterbath	Incubation room		With variable temperature and mixing
50 ml tube rack	Hallway storage (1. Floor)		
Vortex			
Microwave			

### 4. Materials and reagents – their shelf life and risk labelling

Name	Components (Concentrations)	Manufacturer / Cat. #	Room	Safety considerations
PBS				
Eppendorf tubes		Contact Lab-manager	Micro storage	
TAE buffer				
Agarose				
Microscope oil		Leica		
Glass plates				
Glas flask				
Tape				
p1000 Pipette				

## 5. QC – Quality Control

## 6. List of other SOPs relevant to this SOP

SOP0036 – Nile Red agar plates

## 7. Environmental conditions required

## 8. Procedure

- 8.1 Mix a solution of 1% agarose.
- 8.2 Wrap up two glass plates in a layer of tape and place on either side of a plain glass plate.
- 8.3 Add 150 $\mu$ L of liquid 1% agarose to the places on the plain glass slide where you would place samples.
- 8.4 Quickly after adding the agarose place an additional plain glass slide across the three slides and apply pressure to create a flat agarose pillow for your sample.
- 8.5 Add samples to the agarose pillow and place a glass slide on top.
- 8.6 Add oil to the glass slide and observe cells in fluorescence microscope.

## 9. Waste handling

Chemical name	Concentration	Type of waste (C, Z...)	Remarks
Supernatant		Liquid bacterial waste	
Once use plastic		GMO yellow waste	

## 10. Time consumption

- Total-time 40 min.
- Hands-on-time 40 min.

## 11. Scheme of development

<b>Date / Initials</b>	<b>Version No.</b>	<b>Description of changes</b>
16.07.04 / JVN & JR	01	The SOP has been written
16.10.11 / JVN & JR		The SOP has been reviewed

## **12. Appendixes**