

# Yeast Growth

## 1. Materials:

- 2 Autoclaved shot glasses
- 3 Autoclaved Erlenmeyers with pignose
- Magnetic Stirrer
- Ammonium Sulfate  $(\text{NH}_4)_2\text{SO}_4$
- Glucose (Dextrose)  $\text{C}_6\text{H}_{12}\text{O}_6$
- YNB without amino acids
- Yeast Extract
- Peptone
- milliQ Water

## 2. Media Preparation:

### 2.1. Yeast Nitrogen Base (YNB) Minimal Media 500 mL

#### Ammonium Sulfate

- Molecular Weight:  $132.14 \text{ g}\cdot\text{mol}^{-1}$
- Location: Above the pH meter (G46)
- Mass: 2.5 g
- Balance Weight: \_\_\_\_\_

#### YNB without Amino Acids

- Location: Above Balance (G46)
- Mass: 0.85 g
- Balance Weight: \_\_\_\_\_

#### Glucose (Dextrose):

- Molecular Weight:  $180.156 \text{ g}\cdot\text{mol}^{-1}$
- Location: Above the TECAN  $\text{OD}_{600}$  (G46)
- Mass: 10 g
- Balance Weight: \_\_\_\_\_

Add milliQ water to 500 mL and filter

### 2.2. Yeast Extract, Peptone, Dextrose (YPD) Rich Media 500 mL

#### Yeast Extract

- Location: Above the Balance (G46)
- Mass: 5 g
- Balance Weight: \_\_\_\_\_

### Peptone

- Location: Below Balance (G46)
- Mass: 10 g
- Balance Weight: \_\_\_\_\_

### Glucose (Dextrose):

- Molecular Weight: 180.156 g.mol<sup>-1</sup>
- Location: Above the TECAN OD<sub>600</sub> (G46)
- Mass: 10 g
- Balance Weight: \_\_\_\_\_

Add milliQ water to 500 mL and filter

## **3. Yeast Strain**

- Name: FY4
- Location: G34 Freezer "The Dragon", 3<sup>rd</sup> shelf, 3<sup>rd</sup> Metabolic box, 2<sup>nd</sup> Column top box.
- Characteristics: Prototrophic strains

## **4. Culture and Growth:**

### **4.1. Pre-Inoculation YNB:**

- 3 Greiner Tube (each 3mL YNB media)
- Incubation:
  - 30°C
  - 250 rpm
  - Around 15h to reach OD of 0.5

### **4.2. Pre-Inoculation YPD:**

- 3 Greiner tubes per previous tube (each 3mL YPD)
- Add 800 uL YNB culture in each tube
- Incubation:
  - 30°C
  - 250 rpm
  - Around 10h to reach OD of 2

### **4.3. Inoculation YPD :**

- 3 Erlenmeyer
- Add 45 mL YPD media in each
- Add 6 mL Culture in each
- Incubation:
  - 30°C
  - 250 rpm
  - Around 10h to reach OD of 3

## 5. Cell Harvesting

- Fill needed number of Eppendorf tubes (2mL) with culture
- Centrifuge:
  - 4°C
  - Max Speed
  - 1 min
- Discard supernatant
- Freez pellet in Freezer (-80°C)