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Solid Growth Medium - Yeast

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We use this protocol and it's working

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Abstract

This protocol describes the steps to prepare solid culture medium for Saccharomyces cerevisiae.

Materials

Chemicals:

SC-Ura Powder
Sunrise Science Products
Cat#: 1306-030
Lot#: 23K3083
Exp: 10/2027

Yeast Nitrogen Base Without Amino Acids
Sigma Life Science
Cat#: Y0626-250G
Lot#: SLBG0555V

Glucose
Sunrise Science Products
Cat#: 1907-1kg
Lot#: 3A0036

Agar
Sunrise Science Products
Cat#: 1910-500
Lot#: 3B0104

Sodium Hydroxide
Fisher Scientific
Cat#: S318-500
Lot#: 130802

Deionized Water

Equipment:

500 ml laboratory bottle with screw cap
1ml pipette
50 ml pipette
stirring hot plate
magnetic stirring bar
micro scales
autoclave
thermometer
10cm polystyrene Petri dishes (20 pieces)

4°C fridge

Before start

Have the following solutions premixed:

Glucose 20% 500 ml solution:
Concentration: 200 g/l
mix 100 g Glucose in 500 ml deionized water (ddH_2O)

Sodium Hydroxide 1M solution 50 ml:
Concentration: 39.997 g/l
mix 1.99985 g NaOH into 50 ml ddH_2O

Optional:
SC-xx 10x 100ml solution:
Concentration: 19.2 g/l
mix 1.92 g into 100 ml ddH_2O

YNB 20x 100ml solution:
Concentration: 134.4 g/l
mix 13.44 g into 100 ml ddH_2O

1 Compound medium for autoclave

STEP CASE

Medium preparation with pre-resolved components 12 steps

This version of the protocol shows the preparation of the medium from SC-XX 10x and YNB 20x solutions.

1.1 Fill a 500 ml flask with 374 mL ddH_2O.
Add a magnetic stirring bar and place the flask on a stirring hot plate.

1.2 Add 25 mL YNB 20x solution (Yeast Nitrogen Base with Ammonium Sulfate without Amino Acids).

1.3 Add 50 mL SC-XX 10x solution.

Note

In regard to cover all optional dropout media the amino acid base holds the notification - xx, where xx stand for the amino acid(s) that is as selection factor, missing in the medium.

1.4 Add 10 g Agar.

1.5 Add 1 mL NaOH 1 molar solution.

Note

This is essential for the solidification of the medium!

2 Autoclave for 00:15:00 at 121 °C .

Note

Remove the stirring bar before going to autoclave.

3 Cooling and platting

3.1 Add a sterile stirring bar and thermometer. Let the medium stir to homogenize its temperature, while cooling.

3.2 When the medium cooled down to around 80 °C add 50 mL sterile Glucose 20%.

3.3 When the medium cooled down to 60 °C , plate 25 mL per 10 cm Petri dish (~20 dishes).

3.4 Let the medium solidify and cool down to Room temperature .

4 Seal the prepared dishes in a plastic bag to prevent condensation and store them in 4 °C fridge.

Note

The agar plates can be store in the 4°C fridge for 2 to 3 months.