Carboxymethylcellulose Media Generation

2017 Protocols

Adapted from Dalhousie iGEM (2016)

Purpose:

The purpose of this protocol is to create solid growth media containing both carboxymethylcellulose and glucose for measuring endoglucanase activity.

Required Materials:

- 200 mL sterile M9 Salts (refer to M9 Salt protocol)
- 2 mL 1M $MgSO_4$
- 1 mL 0.1M $CaCl_2$
- 4g carboxymethylcellulose (Avicel)
- 4g Agar
- 100 mL 20% Glucose in dH_2O
- Up to 1000 mL dH_2O

Procedure:

1. Filter sterilize 20% glucose solution, 0.1M $CaCl_2$ solution, and 1M $MgSO_4$ with 0.2 μm filter.
2. Mix all contents besides the salts together, adding the carboxymethylcellulose slowly and with vigorous stirring.
3. Autoclave solution at 121°C. Refer to your lab's safety protocols regarding autoclaving.
4. Add salts once autoclaved media has cooled to ~55°C and pour onto sterile petri plates.
5. Let plates cool completely before drying. To dry, let plates sit media side up in a 37°C incubator overnight.