Microorganisms



110: CHOPPED MEAT MEDIUM WITH CARBOHYDRATES

This recipe contains strain-specific modifications for Akkermansia muciniphila DSM 26127 *

Final pH: 7.0

Final volume: 1000 ml

| Ground beef (fat free) | 500.00 | g |
|------------------------|---------|----|
| Distilled water | 1000.00 | ml |
| NaOH (1 N) | 25.00 | ml |

1. Use lean beef or horse meat. Remove fat and connective tissue before grinding. Mix meat, water and NaOH, then boil for 15 min with stirring. Cool to room temperature, skim fat off surface, and filter, retaining both meat particles and filtrate. To the filtrate add water to a final volume of 1000 ml, and then add:

| Casitone | 30.00 | g |
|---|-------|----|
| Yeast extract | 5.00 | g |
| K ₂ HPO ₄ | 5.00 | g |
| Sodium resazurin (0.1% w/v) | 0.50 | ml |
| D-Glucose | 4.00 | g |
| Cellobiose | 1.00 | g |
| Maltose | 1.00 | g |
| Starch (soluble) | 1.00 | g |
| L-Cysteine HCl, add to make medium anoxic | 0.50 | g |
| Agar, if required | 15.00 | g |
| | | |

2. In some cases (as indicated in the catalogue) the addition of Haemin and Vitamin K_1 or Vitamin K_3 is necessary. Add to 1000 ml of medium after autoclaving: and either or

| Haemin solution | 10.00 | ml |
|--|-------|-----|
| Vitamin K ₁ solution, alternative | 10.00 | ml |
| Vitamin K ₃ solution | 10.00 | ml |
| Mucin | 1.00 | g/l |

3. To make medium anoxic boil it, cool under $100\% \ N_2$ gas atmosphere, add $0.5 \ g/l$ L-cysteine hydrochloride and adjust pH to 7.0. Dispense under same gas atmosphere 7 ml medium into Hungate-type tubes (for strains demanding meat particles put those first into the tube (use 1 part meat particles to 4 or 5 parts fluid)). Autoclave at 121° C for 30 min. For agar slants use $15.0 \ g$ agar per $1000.0 \ ml$ medium.

Haemin solution (from medium 78)

| Haemin | 50.00 | mg |
|------------|-------|----|
| NaOH (1 N) | 1.00 | ml |

^{*} Plus 0,1% mucin; anaerobic

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Distilled water 100.00 ml

Dissolve 50 mg haemin in 1 ml 1 N NaOH; make up to 100 ml with distilled water and filter sterilize. Store refrigerated.

Vitamin K₁ solution (from medium 78)

| Vitamin K ₁ | 0.10 | ml |
|------------------------|-------|----|
| Ethanol (95 %) | 20.00 | ml |

Dissolve 0.1 ml of vitamin K_1 in 20 ml 95% ethanol and filter sterilize. Store refrigerated in a brown bottle.

Vitamin K₃ solution

| Vitamin K ₃ | 5.00 | mg |
|------------------------|--------|----|
| Ethanol (95%) | 1.00 | ml |
| Water | 100.00 | ml |

Dissolve 5 mg vitamin K_3 in 1 ml 95% ethanol, dilute to 0.05 mg/ml in water and filter sterilize. Store refrigerated in a brown bottle.