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|-------------------|--|--------------------|----------------------------|--------------|--|
| <b>Department</b> | <b>Micro Laboratory</b>                                  | <b>Document no</b> | <b>MICLAB – METHOD 025</b> |              |  |
| <b>Title</b>      | <b>Preparation of MacConkey Agar No. 3 (Oxoid CM115)</b> |                    |                            |              |  |
| Prepared by:      |  | Date:              |                            | Supersedes:  |  |
| Checked by:       |  | Date:              |                            | Date Issued: |  |
| Approved by:      |  | Date:              |                            | Review Date: |  |

## 1.0 SUMMARY OF CHANGES

| <b>Version #</b>           | <b>Revision History</b> |
|----------------------------|-------------------------|
| <b>MICLAB – METHOD 025</b> | New                     |

## 2.0 PURPOSE

This document describes the method of preparation of MacConkey Agar No. 3 (Oxoid CM115).

## 3.0 SCOPE

This selective medium is used for differentiation between coliforms and non-lactose fermenters.

## 4.0 RESPONSIBILITY \ BUSINESS RULES

All microbiology staff.

## 5.0 PROCEDURE

### 5.1 Material and Reagents Required

- 5.1.1 500mL Schott bottles.
- 5.1.2 Beaker (microwaveable).
- 5.1.3 Measuring cylinder.
- 5.1.4 1N NaOH and 1N HCl.
- 5.1.5 Plastic pipettes.
- 5.1.6 RO water.
- 5.1.7 Automatic dispenser.
- 5.1.8 MacConkey Agar (Oxoid CM115).

### 5.2 Method

- 5.2.1 Weigh out 51.5g per litre of MacConkey agar powder into a beaker.
- 5.2.2 Add approximately 500mL of RO water and mix well.
- 5.2.3 Dissolve on high setting in microwave with frequent mixing.
- 5.2.4 Make up 1L volume.
- 5.2.5 Adjust pH to 7.1.
- 5.2.6 Dispense 400mL into Schott bottles and sterilise by autoclaving at 121°C for 15 minutes.

|            |   |             |                     |
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5.2.7 Final pH after sterilisation should be 7.1 + 0.2.

5.2.8 Record all details of media preparation on SF150712.

### **5.3 Quality Control Requirements**

| <b>QUALITY CONTROL REQUIREMENTS</b>     |                        |               |  |
|---|------------------------|---------------|--|
| STORAGE:                                | BULK                   | -             | 3 months in cupboard                   |
|   | POURED PLATES          | -             | 2 weeks in fridge (2-8°C)              |
| <b>ECOMETRIC EVALUATION / FERTILITY</b> |                        |               |  |
| CONTROL ORGANISMS:                      |                        |               |  |
| Positive:                               | E.coli<br>N.C.T.C 9001 | Negative:     | Pseudomonas aeruginosa<br>A.T.C.C 9027 |
| Growth Index:                           | ≥ 3                    | Growth Index: | ≥ 3                                    |
| INCUBATION CONDITIONS:                  |                        |               |  |
| Temperature:                            | 37 ± 1°C               | Time:         | 48 hours                               |

### **6.0 DEFINITIONS / ACRONYMS**

N/A.