## **Dixon's Agar (Twin Pack)**

### **Intended Use**

Dixon's Agar is recommended for primary isolation and cultivation of *Malassezia furfur*.

## Summary

Malassezia is a lipophilic yeast commence in areas rich in sebaceous glands of the human skin and other warm-blooded animals. Media based on malt extract is appreciated by many microbiologists due to their richness and nutrient balance especially for the cultivation of fastidious microorganisms. With acidic pH, they are used for the isolation, cultivation and maintenance of yeast and moulds. M. furfur is a lipophilic yeast, therefore in vitro growth must be stimulated by natural oils or other fatty substances.

## **Principle**

Malt extract and Peptone provides nitrogenous compounds. Low pH favours fungal growth and inhibits contaminating bacteria from test samples. For heavily contaminated samples, the plate must be supplemented with inhibitory agents for inhibiting bacterial growth with lower pH.

#### Formula\*

| Ingredients                              | g/L           |  |
|--|---------------|--|
| Part A                                   |               |  |
| Malt Extract                             | 36.0          |  |
| Peptone                                  | 36.0          |  |
| Ox-bile Dessicated                       | 20.0          |  |
| Agar                                     | 14.5          |  |
| Part B                                   |               |  |
| Polysorbate 40                           | 10.0          |  |
| Glycerol Mono-oleate                     | 5.0           |  |
| Final pH (at 25°C)                       | $6.0 \pm 0.2$ |  |
| *Adjusted to suit performance parameters |               |  |

# Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label.

## Type of specimen

Clinical samples - Skin scrapings

## **Specimen Collection and Handling**

Ensure that all samples are properly labelled.

Follow appropriate techniques for handling samples as per established guidelines.

Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration.

After use, contaminated materials must be sterilized by autoclaving before discarding.

## **Directions**

- 1. Suspend 15mL of fluid part B in 1000mL purified / distilled water. To this add 106.50 g of the powder of part A.
- 2. Mix well and heat to boiling to dissolve the powder completely.
- 3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
- 4. Cool to 45°C-50°C. Mix well pour into sterile petridishes or dispense into tubes for slants.

## **Quality Control**

## Appearance:

Part A: Cream to yellow coloured, homogenous, free flowing powder.

Part B: Colourless to pale yellow viscous solution

Prepared Appearance: Brownish yellow coloured, opalescent gel with scum forms in petridishes.

Cultural Response: Cultural characteristics observed after an incubation of 40-48 hours at 35°C-37°C.

| Organisms (ATCC)              | Growth |
|-------------------------------|--------|
| Candida albicans 3147 (10231) | Good   |
| Candida glabrata (15126)      | Good   |
| Candida krusei (24408)        | Good   |
| Candida tropicalis (750)      | Good   |
| Malassezia furfur (14521)     | Good   |

#### Limitations

- 1. Due to nutritional variation, some strains may show poor growth.
- 2. Some pathogenic fungi may produce infective spores which are easily dispersed in air
- 3. Further biochemical tests must be performed for confirmation

#### **Performance and Evaluation**

Performance of the product is dependent on following parameters as per product label claim:

- 1. Directions
- 2. Storage
- 3. Expiry

## Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

## Reference

- 1. Shah A, Koticha A, Ubale M, Wanjare S, Mehta P, Khopkar U. Identification and speciation of Malassezia in patients clinically suspected of having pityriasis versicolor. Indian J Dermatol 2013;58:239.
- 2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- 3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2<sup>nd</sup> Edition.
- 4. Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Yolken RH (editors) 2003, Manual of clinical Microbiology, 8<sup>th</sup> ed., ASM, Washington, D.C.
- 5. Data on file: Microxpress<sup>®</sup>, A Division of Tulip Diagnostics (P) Ltd.

# **Product Presentation:**

| Cat No.      | Product description      | Pack Size |
|--------------|--------------------------|-----------|
| 201040420500 | Dehydrated Culture Media | 500 g     |

#### Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.