**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

| **B233** | **MOTILITY INDOLE ORNITHINE AGAR** |
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**Formula**

| **Ingredients :** | **gms/lit.** |
|---|---|
| Casein enzymic hydrolysate | 10.00 |
| Peptic digest of animal tissue | 10.00 |
| Yeast extract | 3.00 |
| L-Ornithine hydrochloride | 5.00 |
| Dextrose | 1.00 |
| Bromo cresol purple | 0.02 |
| Agar | 2.00 |

Final pH (at 25°C) : 6.5 ± 0.2

**Directions :**

Suspend 31.02 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense in test tubes in 5 ml amounts. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubes in an upright position.

**Principle :**

MIO Medium contains Peptic digest of animal tissue and Casein enzyme hydrolysate which provide carbon and nitrogen. Yeast Extract provides vitamins and cofactors required for growth as well as additional sources of nitrogen and carbon. Dextrose is an energy source. Agar is added to demonstrate motility. The pH indicator, Bromo Cresol Purple, facilitates detection of decarboxylase activity.

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| **QC Tests – (I)Dehydrated Medium** | |
| Colour : | Light yellow to pale green |
| Appearance : | Homogeneous Free Flowing powder |
| **(II)Rehydrated medium** | |
| pH (post autoclaving/heating) : | 6.5 ± 0.2 |
| Colour (post autoclaving/heating) : | Purple |
| Clarity (post autoclaving/heating) : | Clear to slightly opalescent |
| **(III) Q.C. Test Microbiological** | |

Cultural characteristics observed after 40 – 48 hours at 35 - 37°C.

| MICROORGANISM (ATCC ) | GROWTH | MOTILITY | INDOLE | ORNITHINE DECARBOXYLASE |
|---|---|---|---|---|
| Enterobacter aerogenes (13048) | Luxuriant | + | - | + |
| Escherichia coli (25922) | Luxuriant | + | + | + |
| Klebsiella pneumoniae (13883 ) | Luxuriant | - | - | - |
| Proteus mirabilis (25933)* | Luxuriant | + | - | + |

Key : + = positive reaction
- = negative reaction
* = motility of Proteus mirabilis is temperature dependent. It is more Pronounced at 20°C and almost absent at 35°C.

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| **Precautions :** | 1. For Laboratory Use.<br>2. Follow proper, established laboratory procedures in handling and disposing of infectious materials. |
| **Limitations :** | 1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium. |
| **Use :** | For the identification of Enterobacteriaceae on the basis of motility, indole production and ornithine decarboxylase activity. |
| **Storage :** | Dehydrated medium- below 30°C Prepared medium– Between 2 to 8°C. |
| **Packing :** | 500 gm. bottle |

| **Product profile:** | Reconstitution | Quantity on Preparation (500g) | pH (25°C) | Supplement | Sterilization |
|---|---|---|---|---|---|
| **B233** | 31.02 g/l | 16.118 L | 6.5 ± 0.2 | NIL | $121^0$C / 15 minutes |