**TECHNICAL SHEET**

| **B656** | **LACTOSE BLUE AGAR** |
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**Formula**

| **Ingredients :** | **gms/lit.** |
|---|---|
| Peptic digest of animal tissue | 3.50 |
| Casein enzymic hydrolysate | 3.50 |
| Sodium chloride | 5.00 |
| Lactose | 15.50 |
| Bromo thymol blue | 0.04 |
| Agar | 13.00 |

Final pH (at 25°C) : 7.0 ± 0.2

**Directions :**

Suspend 40.54 gms. in 1000ml. distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle :**

Casein enzymic hydrolysate and peptic digest of animal tissue provide essential nutrients for bacterial metabolism. Lactose provides a fermentable carbohydrae source for the enteric bacteria. Bromo thymol blue is a pH indicator for indicating the acid production due to carbohydrate fermentaion. It turns yellow at acidic pH and imparts yellow colour to the colony. Alkalinization produces a blue colouration. Winkle recommended additon of 0.28 g/l metachrome yellow to suppress the swarming to Proteus species.

| **QC Tests – (I)Dehydrated Medium** | |
|---|---|
| Colour : | Yellow |
| Appearance : | Homogeneous Free Flowing powder |
| **(II)Rehydrated medium** | |
| pH (post autoclaving/heating) : | 7.0 ± 0.2 |
| Colour (post autoclaving/heating) : | Green |
| Clarity (post autoclaving/heating) : | Clear to slightly opalescent |
| **(III)Q.C. Test Microbiological** | |

Cultural characteristics observed after 18 –24 hrs.at 35-37°C.

| MICROORGANISM (ATCC ) | GROWTH | COLOUR OF COLONY | |
|---|---|---|---|
| Escherichia coli (25922) | Luxuriant | Yellow, opaque | |
| Salmonella enteritidis (13076 ) | Luxuriant | Bluish | |
| Salmonella typhi ( 6539 ) | Luxuriant | Bluish | |
| Staphylococcus aureus (25923) | Good - luxuriant | Deep yellow | |
| | | | |

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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 differentiation of lactose fermenting and non-fermenting bacteria belonging to Enterobacteriaceae. |
| **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 |
|---|---|---|---|---|---|
| **B656** | 40.54 g/l | 12.33 lit | 7.0 ± 0.2 | nil | $121^0$C/15 min |