

TECHNICAL SHEET

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|--|---------------------------|---|--|-----------|------------|--------------------|
| B683 | PHENYLALANINE AGAR | | | | | |
| Formula | | | | | | |
| Ingredients : | | gms/lit. | | | | |
| Yeast extract | | 3.00 | | | | |
| Sodium chloride | | 5.00 | | | | |
| DL-Phenylalanine | | 2.00 | | | | |
| Disodium phosphate | | 1.00 | | | | |
| Agar | | 15.00 | | | | |
| Final pH (at 25°C) : 7.3 ± 0.2 | | | | | | |
| Directions : | | | | | | |
| Suspend 26 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Allow the tubed medium to cool in a slanting position. | | | | | | |
| Principle : | | | | | | |
| Yeast extract in the medium supports the growth of the organisms. Sodium chloride maintains osmotic equilibrium. The phenylalanine serves as the substrate for enzymes, which are able to deaminate it to form phenylpyruvic acid. A recommended technique is to inoculate the slant surface with plenty of inoculum and incubate it for 12-16 hours. After incubation, add 0.2 ml of 10% ferric chloride solution so that the solution floods all over the growth. The addition of (0.2 ml 3-5 drops) of a 10% aqueous ferric chloride solution (or a 12% aqueous ferric chloride solution acidified with 2.5 ml of concentrated HCl per 100 ml of reagent) to the cultures following incubation results in the appearance of a light to deep green color (positive reaction) or no color change (negative reaction). | | | | | | |
| QC Tests – (I) Dehydrated Medium | | | | | | |
| Colour : | | Cream to yellow | | | | |
| Appearance : | | Homogeneous Free Flowing powder | | | | |
| (II) Rehydrated medium | | | | | | |
| pH (post autoclaving/heating) : | | 7.3 ± 0.2 | | | | |
| Colour (post autoclaving/heating) : | | Light amber | | | | |
| Clarity (post autoclaving/heating) : | | Slightly opalescent | | | | |
| (III) Q.C. Test Microbiological | | | | | | |
| Cultural characteristics observed after an incubation at 35-37°C for 12-16 hours | | | | | | |
| MICROORGANISM (ATCC) | | GROWTH | PHENYLALANINE DEAMINASE | | | |
| Enterobacter aerogenes (13048) | | Luxuriant | - | | | |
| Escherichia coli (25922) | | Luxuriant | - | | | |
| Proteus vulgaris (13315) | | Luxuriant | +, Green colouration after addition of 10% ferric chloride | | | |
| Proteus mirabilis (25933) | | Luxuriant | +, Green colouration after addition of 10% ferric chloride | | | |
| Providencia alcalifaciens (9886) | | Luxuriant | +, Green colouration after addition of 10% ferric chloride | | | |
| Precautions : | | 1. For Laboratory Use. 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. 2. Interpret the results within 5 minutes upon addition of reagent as the green colour fades quickly. 3. Certain species rapidly deaminate phenylalanine, allowing for a positive test result within 4 hours of incubation. | | | | |
| Use : | | Used for the differentiation of Proteus and Providencia group of organisms from other members of Enterobacteriaceae on the basis of their ability to form phenyl pyruvic acid from phenylalanine. | | | | |
| 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 |
| B683 | 26g/l | | 19.230L | 7.3 ± 0.2 | NIL | 121°C / 15 minutes |

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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