

BIOMARK Laboratories – INDIA

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TECHNICAL SHEET

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| B779 | Mac Conkey Agar w/CV, NaCl & 0.15% Bile Salts | |
| Formula | | |
| Ingredients : | gms/lit. | |
| Peptone | 20.00 | |
| Lactose | 10.00 | |
| Bile Salts | 1.50 | |
| Sodium chloride | 5.00 | |
| Crystal violet | 0.001 | |
| Neutral red | 0.05 | |
| Agar | 15.00 | |
| Final pH (at 25°C) : 7.2± 0.2 | | |
| Directions : | | |
| Suspend 51.55 grams of medium in 1000 ml distilled water. Heat to boiling with gentle swirling to dissolve the agar completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Avoid overheating. Cool to 45 - 50°C. Mix well and pour into sterile Petri plates. The surface of the medium should be dry when inoculated. | | |
| Principle: Peptone serves as a source of carbon, nitrogen, long chain amino acids, vitamins and other essential growth nutrients. Lactose serves as the carbon source by being the fermentable carbohydrate. Bile salts and crystal violet serves to make the medium selective by inhibiting accompanying gram-positive bacteria. Neutral red is the pH indicator dye while sodium chloride maintains the osmotic equilibrium of the medium. | | |
| QC Tests – (I) Dehydrated Medium | | |
| Colour : | Light yellow to pink | |
| Appearance : | Homogeneous Free Flowing powder | |
| (II) Rehydrated medium | | |
| pH (post autoclaving/heating) : | 7.2 ± 0.2 | |
| Colour (post autoclaving/heating) : | Red with purplish tinge | |
| Clarity (post autoclaving/heating) : | Clear to slightly opalescent | |
| (III) Q.C. Test Microbiological | | |
| Cultural characteristics observed after 18 – 72 hours at 30- 35°C. | | |
| MICROORGANISM (ATCC) | GROWTH | COLOUR OF COLONY |
| Enterobacter aerogenes (13048) | Luxuriant | Pink to red |
| Escherichia coli (25922) | Luxuriant | Pink to red with bile precipitate |
| Escherichia coli (NCTC 9002) | Luxuriant | Pink to red with bile precipitate |
| Salmonella Typhimurium (14028) | Luxuriant | Colourless |
| Proteus vulgaris (13315) | Luxuriant | Colourless |
| Salmonella enteritidis (13076) | Luxuriant | Colourless |
| Salmonella typhi (6539) | Luxuriant | Colourless |
| Salmonella paratyphi A | Luxuriant | Colourless |
| Salmonella paratyphi B | Luxuriant | Colourless |
| Salmonella Abony (NCTC 6017) | Luxuriant | Colourless |
| Shigella flexneri (12022) | Fair to good | Colourless |
| Enterococcus faecalis (29212) | None-poor | Colourless to pale pink |
| Staphylococcus aureus (25923) | Inhibited | -- |
| Staphylococcus aureus (6538) | Inhibited | -- |
| Precautions : | 1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials. | |

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| 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. Although MacConkey media are selective primarily for gram – negative enteric bacilli, biochemical and, if indicated, serological testing using pure cultures are recommended for complete identification. Consult appropriate references for further information. | | | | |
| | 3. Due to the selective properties of MacConkey Agar CV, some strains of gram – negative enteric bacilli may be encountered that fail to grow or grow poorly on this medium. Some strains of gram – positive organisms may be encountered that are not inhibited or only partially inhibited on this medium ; some strains of enterococci may grow on MacConkey Agar CV after prolonged incubation. | | | | |
| | 4. Incubation of MacConkey Agar plates under increased CO ₂ has been reported to reduce the growth and recovery of a number of strains of gram – negative bacilli. | | | | |
| | 5. For optimal performance, plates prepared from MacConkey Agar CV should be incubated under aerobic conditions. | | | | |
| Use : | Recommended to identify Enterobacteriaceae in the presence of coliforms and lactose nonfermenters from water, sewage, food products etc. | | | | |
| 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 |
| | B779 | 51.55 g/L | 9.699L | 7.2± 0.2 | NIL |