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| B027 | FLUID TETRATHIONATE MEDIUM (W/O IODINE & BG) | | | | | |
| Formula | | | | | | |
| Ingredients : | | gms/lit. | | | | |
| Tryptone | | 2.5 | | | | |
| Peptic Digest of Animal Tissue | | 2.5 | | | | |
| Bile Salts | | 1.0 | | | | |
| Calcium carbonate | | 10.0 | | | | |
| Sodium thiosulphate | | 30.0 | | | | |
| Final pH (at 25°C) : Self | | | | | | |
| Directions : | | | | | | |
| Suspend 46.0 grams in 1000 ml distilled water and heat just to boiling. DO NOT AUTOCLAVE. Cool below 45°C and add 20 ml iodine solution (iodine - 6 grams and potassium iodide - 5 grams in 20 ml distilled water) and 10 ml of 0.1% brilliant green solution. Mix well and dispense in 10 ml quantities. This complete medium should be used on the day of preparation otherwise sterilized broth base may be stored for some time. Do not heat after the addition of iodine solution. Use the medium immediately after addition of iodine. Note: Due to the presence of calcium carbonate, the prepared medium forms opalescent solution with white precipitate. | | | | | | |
| Principle : | | | | | | |
| Tryptone and peptic digest of animal tissue are the sources of carbon, nitrogen, vitamins and minerals. Bile salts inhibit accompanying gram-positive microorganisms. The selectivity depends on the ability of thiosulphate and tetrathionate in combination to suppress commensal coliform organism. Calcium carbonate neutralizes the acidic tetrathionate decomposition products. Brilliant green also helps to select Salmonella by inhibiting the accompanying bacteria. For further confirmation, streak the enriched cultures after incubation, on plates of Brilliant Green Agar, Modified (B1150), MacConkey Agar (B238) and Bismuth Sulphite Agar (B115) | | | | | | |
| QC Tests – (I) Dehydrated Medium | | | | | | |
| Colour : | | Off white to cream | | | | |
| Appearance : | | Homogeneous Free Flowing powder | | | | |
| (II) Rehydrated medium | | | | | | |
| pH (post autoclaving/heating) : | | Self | | | | |
| Colour (post autoclaving/heating) : | | Complete medium with added brilliant green and iodine solution : Light green with white precipitate. | | | | |
| Clarity (post autoclaving/heating) : | | Opalescent solution with heavy white precipitate. | | | | |
| (III) Q.C. Test Microbiological | | | | | | |
| Cultural characteristics observed after 18-24 hrs. at 35-37°C when sub cultured on MacConkey Agar (B238) after enrichment in Tetrathionate medium. | | | | | | |
| MICROORGANISM (ATCC) | | RECOVERY | | COLONY | | |
| Escherichia coli (25922) | | Little or no increase in numbers | | Pink-red with bile precipitate | | |
| Salmonella choleraesuis (12011) | | Good to excellent | | Colourless | | |
| Salmonella typhi (6539) | | Good to excellent | | Colourless | | |
| Salmonella typhimurium (14028) | | Good to excellent | | Colourless | | |
| Escherichia coli (NTCC9002) | | Little or no increase in numbers | | Pink-red with bile precipitate | | |
| Escherichia coli (8739) | | Little or no increase in numbers | | Pink-red with bile precipitate | | |
| Precautions : | | 1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials. 3. IRRITANT. Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed. | | | | |
| Limitations : | | 1. For further confirmation, streak the enriched cultures after incubation, on plates of Brilliant Green Agar (B1150), MacConkey Agar (B238) and Bismuth Sulphite Agar (B115). | | | | |
| Use : | | As selective enrichment medium for isolation of Salmonellae from food and other pathological materials. | | | | |
| 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 |
| B027 | | 46g/l | 10.86L | SELF | Iodine Solution & 0.1% brilliant green solution. | DO NOT AUTOCLAVE |

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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