| B513I | ORNITHINE DECARBOXYLASE BROTH |
| :--- | :--- |
| Formula | gms/lit. |
| Ingredients : | 5.00 |
| L-Ornithine monohydrochloride | 3.00 |
| Yeast extract | 1.00 |
| Glucose | 0.015 |
| Bromo cresol purple |  |
| Final pH (at $\left.25^{\circ} \mathrm{C}\right): 6.8 \pm 0.2$ |  |
| Directions: |  |
| Suspend 9.01 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. |  |
| Dispense in test tubes and sterilize by autoclaving at 15 lbs pressure $\left(121^{\circ} \mathrm{C}\right)$ for 15 minutes. After |  |
| inoculation overlay the tubes with $2-3 \mathrm{ml}$ mineral oil. |  |

## Principle :

Medium contains Yeast extract in the medium provides nitrogen and other nutrients necessary to support bacterial growth.The amino acid ornithine is added to detect the production of ornithine decarboxylase.. Glucose is the fermentable carbohydrate, which during the initial stages of incubation, is fermented by the organisms with acid production, which results in colour change of the pH indicator (BCP) to yellow. The production of amine after degradation of ornithine elevates the pH of the medium towards alkalinity, changing the color of the indicator from yellow to purple or violet. If the organism does not produce the appropriate enzyme, the medium remains acidic or yellow in colour.

| QC Tests - (I)Dehydrated Medium |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Colour: |  |  | Light yellow to light green |  |  |  |  |
| Appearance : |  |  | Homogeneous Free Flowing powder |  |  |  |  |
| (II)Rehydrated medium |  |  |  |  |  |  |  |
| pH (post autoclaving/heating) : |  |  | $6.8 \pm 0.2$ |  |  |  |  |
| Colour (post autoclaving/heating) : |  |  | Dark Purple |  |  |  |  |
| Clarity (post autoclaving/heating) : |  |  | Clear to slightly opalescent |  |  |  |  |
| (III) Q.C. Test Microbiological |  |  |  |  |  |  |  |
| Cultural characteristics observed after an incubation at $35-37^{\circ} \mathrm{C}$ for $18-24$ hours. Inoculated tubes are overlayed with mineral oil. |  |  |  |  |  |  |  |
| MICROORGANISM (ATCC ) |  |  | ORNITHINE DECARBOXYLATION |  |  |  |  |
| Escherichia coli (25922) |  |  | Variable reaction |  |  |  |  |
| Enterobacter aerogenes ATCC 13048 |  |  | positive reaction, purple colour |  |  |  |  |
| Klebsiella pneumoniae (13883) |  |  | negative reaction, yellow colour |  |  |  |  |
| Proteus mirabilis (25933) |  |  | negative reaction, yellow colour |  |  |  |  |
| Proteus vulgaris (13315) |  |  | positive reaction, purple colour |  |  |  |  |
| Salmonella Paratyphi A (9150) |  |  | positive reaction, purple colour |  |  |  |  |
| Salmonella Typhi (6539) |  |  | negative reaction, yellow colour |  |  |  |  |
| Shigella flexneri (12022) |  |  | negative reaction, yellow colour |  |  |  |  |
| Shigella sonnei (25931) |  |  | positive reaction, purple colour |  |  |  |  |
| Yersinia enterocolitica (27729) |  |  | positive reaction, purple colour |  |  |  |  |
| 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. |  |  |  |  |  |  |
| Use : | For detection of the ability of microorganisms to decarboxylate ornithine. |  |  |  |  |  |  |
| Storage: | Dehydrated medium- below $30^{\circ} \mathrm{C}$ Prepared medium- Between 2 to $8^{\circ} \mathrm{C}$. |  |  |  |  |  |  |
| Packing : | 500 gm . bottle |  |  |  |  |  |  |
| Product profile: | Reconstitution | Quant Prepa | ity on ation (500g) | $\mathrm{pH}\left(25^{\circ} \mathrm{C}\right)$ |  | Supplement | Sterilization |
| B513I | $9.01 \mathrm{~g} / \mathrm{l}$ |  | 55.5 L | $6.8 \pm 0.2$ | NIL |  | $121^{\circ} \mathrm{C} / 15$ minutes |

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