# CM 22,744 - MOTILITY INDOLE LYSINE IRON AGAR (10 Butts)

## INTENDED USE

Foridentification of members of Enterobacteiaceae on the basis of motility, lysine decarboxylase, lysine deaminase and indole production

## PRODUCT SUMMARY AND EXPLANATION

MIL Medium isprepared asper the formulationof Reller and Merrett. It is a highly useful medium in the identification of Enterobacteriaceae as it provides four differential reactions in a single culture tube. It is recommended to be used along with Triple Sugar Iron Agar (TSI) and UreaAgar so as to enable presumptive identification of members of Enterobacteriaceae from faecal specimens.

## COMPOSITION

| Ingredients | Gms / Ltr |
|---|---|
| **Peptone** | 10.000 |
| **Tryptone** | 10.000 |
| **L-Lysine hydrochloride** | 10.000 |
| **Yeast extract** | 3.000 |
| **Agar** | 2.000 |
| **Dextrose (Glucose)** | 1.000 |
| **Ferric ammonium citrate** | 0.500 |
| **Bromocresol purple** | 0.020 |

## PRINCIPLE

Peptone, Tryptone and yeastextract supply amino acids and other complex nitrogenous substances. Dextrose is a source of energy. A small amountofagar is added for demonstration of motility along the stab line of inoculation. Growth of motile organisms extendsoutfrom the line of inoculation, while non-motile organisms grow only along the stab line. Bromocresol purple servesasthe pH indicator.

## INSTRUCTION FOR USE

Inoculatethebacterialculture with an inoculating needle by streaking the slants.

## QUALITY CONTROL SPECIFICATIONS

**Appearance** : Reddish purple coloured clear to slightly opalescent gel forms in tubes as butts

**Quantity of Medium** : 8ml of medium in glass tube.

**pH ( at 25°C)** : 6.6±0.2

## INTERPRETATION

Culturalcharacteristics observed after an incubation.

| Microorganism | ATCC | Motility | Indole production | Lysine Deaminase | Lysine decarboxylase | Incubation Time | Incubation Temperature |
|---|---|---|---|---|---|---|---|

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|---|---|---|---|---|---|---|---|
| *Klebsiella aerogenes* | 13048 | Positive, growth away from stabline | Negative reaction | Negative | Positive reaction, purple colour | 35-37°C | 18-24 hours |
| *Escherichia coli* | 25922 | Positive, growth away from stabline | Positive, red ring at the interface of the medium on addition of Kovac's reagent | Negative | Positive reaction, purple colour | 35-37°C | 18-24 hours |
| *Klebsiella pneumoniae* | 13883 | Negative, growth along the stabline | Occasional reaction | Negative | Positive reaction, purple colour | 35-37°C | 18-24 hours |
| *Proteus mirabilis* | 25933 | Positive, growth away from stabline | Negative reaction | Positive reaction, red-brown colour reaction at the top | Negative reaction | 35-37°C | 18-24 hours |
| *Proteus vulgaris* | 13315 | Positive, growth away from stabline | Positive reaction, red ring at the interface of the medium on addition of Kovac's reagent | Positive reaction, red-brown colour reaction at the top | Negative reaction | 35-37°C | 18-24 hours |
| *Salmonella enteritidis* | 13076 | Positive, growth away from stabline | Negative reaction | Negative | Positive reaction, purple colour | 35-37°C | 18-24 hours |
| *Shigella flexneri* | 12022 | Negative, growth along the stabline | Occasional reaction | Negative | Negative reaction | 35-37°C | 18-24 hours |

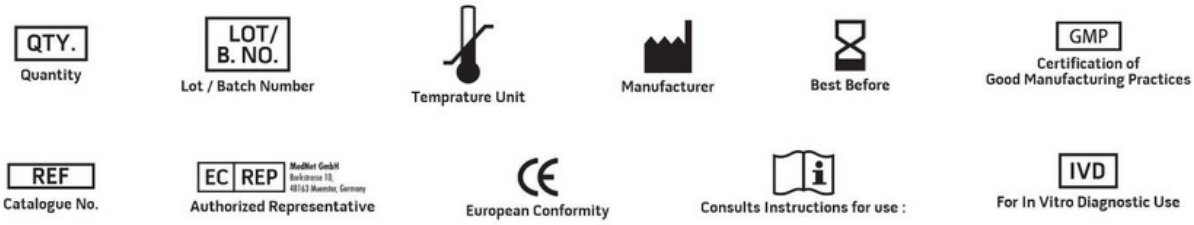
**PACKAGING:**
Kitof10Ready-To-Use Butts containing 8 ml medium in each glass tube.

**STORAGE**
Onreceipt, store tubes in the dark at 2 – 8°C. Avoid freezing and overheating. Do not open until ready to use. Minimize exposure to light. Tubed media stored as labeled until just prior to use may be inoculated up to the expiration date and incubated for the recommended incubation times. Allow the medium to warm to room temperature before inoculation. **Product Deterioration:** Do not use tubes if they show evidence of microbial contamination, discoloration, drying or other signs of deterioration.

**DISPOSAL**
Usermustensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques.

## REFERENCES

1. Ewing W. H., 1986, Edwards and Ewings Identification of Enterobacteriaceae, 4th Ed., Elsevier Science Publishing Co., Inc., New York, N.Y.
2. Forbes B. A, Sahm A. S. and Weissfeld D. F., 1998, Bailey & Scotts Diagnostic Microbiology, 10th Ed., Mosby, Inc., St. Louis, Mo
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
4. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Yolken R. H., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
5. Reller L. B. and Mirrett S., 1975, J. Clin. Microbiol., 2:247.




**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**