Technical Data

HiTouch™ *Flexi* Plate - VR

FL013

For enumeration (count) of *Enterobacteriaceae* .

Composition**

Ingredients	Gms / Litre
Biopeptone	10.000
Lactose	10.000
Bile salts	1.500
Sodium chloride	5.000
Indicator mixture	0.032
Agar	15.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Open the lid and carefully lift up the enclosed prepared medium plate so as to avoid touching the agar surface by hand.Touch the surface of agar plate onto the surface to be tested. Gently press the plate manually for upto 10 sencond. Apply constant and uniform pressure to the whole surface (ensuring that an even pressure of 25 gm/cm2 is distributed over the whole plate for 10 seconds). Replace exposed medium plate back in the base plate. Close the lid. Press the sides of the lid to make sure that it is fixed in the grooves. Disinfect the surface where the sample was taken in order to remove any possible traces of agar. Incubate the plates at specified temperature. After incubation as recommended count the number of colonies which have appeared on the surface of medium. Alternative Methods of Inoculation : To use as Culture Plate (ii), Sample Dilution Plate (iii) or Swabbing Plate (iv) To use as Gravitation Settling Plate (v)

Principle And Interpretation

Hitouch *Flexi* Plates are specially developed for the microbial testing in food , pharmaceutical, cosmetic,dairy, hospitals, water works, environmental testing etc. These plates are handy and ready to use sterile media supplied in flexible disposable plates, 55 mm in diameter. It is grid scored on the base and is irradiated to ensure perfect sterility. Medium is filled aseptically and each plate is packed in pre-sterilized plastic bag. Hitouch *Flexi* Plateis then packed in plastic pouch wrapping. The unique flexible plate configuration ensures close contact even with uneven surfaces. where not only counts are obtained but it is also possible to select and differentiate between groups of microorganisms like coliforms (both *E. coli* and non *E. coli*). These plates are specially developed for microbial testing, The Flexi plate medium formula is suitable for enumeration of Enterobacteriaceae and the grids enable direct reading on the plates of the number of colonies per cm2.

Violet Red Bile Agar, a modification of MacConkeys original formulation (1) is used for the enumeration of coli-aerogens bacterial group. Violet Red Bile Glucose Agar w/o Lactose, was designed for the enumeration of *Enterobacteriaceae* (2). It employs the selective inhibitory components crystals violet and bile salts and the indicator system glucose and neutral red. Sought bacteria will dissimilate glucose and produce purple zones around the colonies (3). ISO committee has also recommended this medium (4). Selectivity of VRBGA can be increased by incubation under anaerobic conditions and/ or at elevated temperature, i.e. equal to or above 42°C (5-7).

Peptic digest of animal tissue and yeast extract serve as sources of carbon, nitrogen, vitamins and other essential growth nutrients. Glucose is the fermentable carbohydrate, utilization of which leads to the production of acids. Neutral red indicator detects the acidity so formed. Crystal violet and bile salts mixture help to inhibit the accompanying gram-positive and unrelated flora. Sodium chloride maintains the osmotic equilibrium. Further biochemical tests are necessary for positive identification (8).

Quality Control

Appearance
Sterile plastic plate containing Reddish pink coloured firm gel

Quantity of Medium
9ml of gel in plastic plate

Reaction
7.20- 7.60

Sterility test
Passes release criteria

Cultural response
Cultural characteristics was observed after an incubation at 35-37°C for 18 - 24 hours.

Organism	Growth	Colour of Colony
Escherichia coli ATCC 25922	Luxuriant	Pinkish red with bile precipitate
Enterobacter aerogenes ATCC 13048	Luxuriant	Pink
S. serotype enteritidis ATCC 13076	Luxuriant	Colourless
Staphylococcus aureus ATCC 25923	Inhibited	

Storage and Shelf Life
Store between 2-8°C. Use before expiry date on the label.

Reference
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4.International Organization for Standardization (ISO), 1993, Draft ISO/DIS 7402.
5.Mossel D. A. A. and Vega C. L., 1973, Hlth. Lab. Sci., 11:303
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