TMV 369 – DEOXYCHOLATE CITRATE AGAR (VEG.)

INTENDED USE

For isolation of enteric pathogens especially *Salmonella* and *Shigella* species.

PRODUCT SUMMARY AND EXPLANATION

Deoxycholate Citrate Agar (Veg) is formulated by replacing animal peptone by vegetable peptone making it free of BSE/TSE risks. This medium is the modification of Deoxycholate Citrate Agar which is prepared as per the modified formula of Leifson. This medium is similar to the medium used for the isolation and maximum recovery of intestinal pathogens belonging to *Salmonella* and *Shigella* groups from foods. However, it is recommended to use less inhibitory medium when Shigellae have to be isolated. The selectivity of this medium permits the use of fairly heavy inocula without danger of overgrowth of the *Shigella* and *Salmonella* by other microflora.

For the routine examination of stool and urine specimens, it is suggested that other media such as MacConkey Agar (Veg), Bismuth Sulphite Agar (Veg)etc. be used in conjunction with this medium.

COMPOSITION

Ingredients	Gms / Ltr
Veg Infusion	10.000
Veg peptone No.3	13.000
Lactose	10.000
Synthetic detergent No. III	2.000
Neutral red	0.020
Sodium citrate	20.000
Ferric ammonium citrate	2.000
Agar	13.500

PRINCIPLE

The medium consists of Veg infusion which is a source of carbon and nitrogen and this ingredient is used because the inhibition of coliforms produced is greater than when an extract or simple peptone is used. Veg peptone No. 3 provides carbon, nitrogen, vitamins and minerals. Coliform bacteria and gram-positive bacteria are inhibited or greatly suppressed due to Synthetic detergent No. III, sodium citrate and ferric ammonium citrate. Lactose non-fermenters produce colourless colonies. Coliform bacteria, if present, form pink colonies on this medium. The reduction of ferric ammonium citrate to iron sulphide by H_2S (Hydrogen sulphide) producing organisms is indicated by blackening of the central position of the colony.

INSTRUCTION FOR USE

- Dissolve 70.52 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Avoid excessive or prolonged heating during reconstitution.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Pinkish beige coloured, homogeneous, free flowing powder.
Appearance of prepared medium : Reddish orange coloured, clear to slightly opalescent gel forms in petri plates.
pH (at 25°C) : 7.5 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Enterococcus faecalis	29212	>=10^3	Inhibited	0%	-	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Poor	>10%	Pink	35-37°C	18-24 Hours
Salmonella serotype Enteritidis	13076	50-100	Good-luxuriant	>50%	Colourless H_2S production	35-37°C	18-24 Hours
Salmonella serotype Typhimurium	14028	50-100	Luxuriant	>50%	Colourless H_2S production	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Good	>30%	Colourless H_2S production	35-37°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

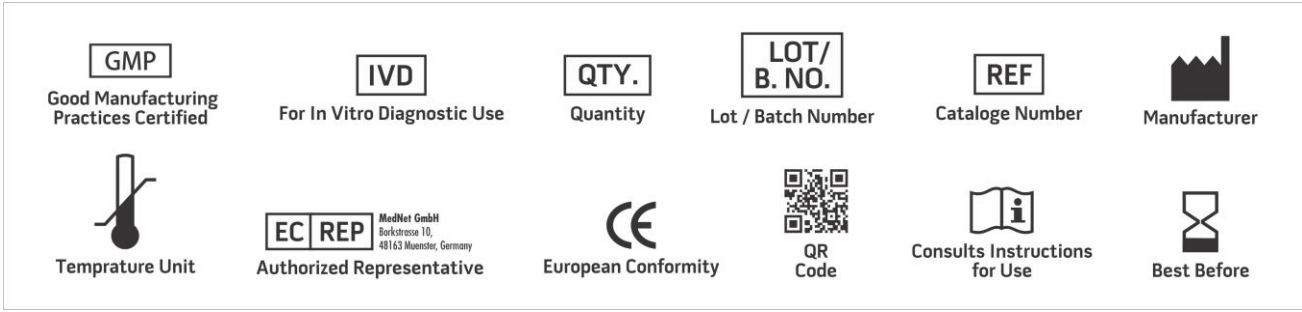
DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Leifson, 1935, J. Path. Bact., 40:581.
2. Speck M. (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd ed., APHA, Washington, D.C.

3. Frieker C.R., 1987, J. Appl. Bact., 63:99.



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

***For Lab Use Only**

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