

# TMV 378 - MacCONKEY AGAR (W/ SODIUM TAUROCHOLATE W/O CV & NaCl.) (VEG.)

#### **INTENDED USE**

For cultivation and differentiation of enteric bacteria and gram positive organisms.

# PRODUCT SUMMARY AND EXPLANATION

MacConkey Veg Agar is the modification of MacConkey Agar prepared as per Medical Microbiology by Cruickshank et al. It is a differential medium which restricts the swarming of most Proteus species thereby permitting greater ease in the detection and isolation of enteric organisms. It is especially useful for culturing urine specimens which may contain large number of *Proteus* species as well as potentially pathogenic gram-positive organisms. *Enterococci* produce compact tiny reddish colonies either on or beneath the surface.

#### **COMPOSITION**

Ingredients	Gms / Ltr		
Veg peptone	23.000		
Lactose	10.000		
Synthetic detergent No. V	2.000 0.040		
Neutral red			
Agar	20.000		

# **PRINCIPLE**

Veg peptone provides necessary nitrogen source. Lactose serves as the fermentable carbohydrate source. The selective action of these media is attributed to the presence of synthetic detergent, which is inhibitory to most species of grampositive bacteria.

# **INSTRUCTION FOR USE**

- Dissolve 55.0 grams of medium in 1000 ml purified/distilled water.
- Heat to boiling with gentle swirling to dissolve the agar completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Avoid overheating.
- Cool to 45-50°C.Mix well and pour into sterile Petri plates.
- The surface of the medium should be dry when inoculated.

#### **QUALITY CONTROL SPECIFICATIONS**

Appearance of Powder : Pinkish beige coloured, homogeneous, free flowing powder.

Appearance of prepared medium : Red coloured, clear to slightly opalescent gel forms in petri plates.

**pH (at 25°C)** : 7.4±0.2

# **INTERPRETATION**

Cultural characteristics observed after an incubation.

Microorganism ATCC Inoculum (CFU/ml) Growth Recovery	Colony Incubation Colony Temperature	Incubation Period
--	--------------------------------------	----------------------











Salmonella Paratyphi B	8759	50-100	Luxuriant	>=70 %	Colourless	35-37°C	18-24 Hours
<i>Salmonella</i> Typhi	6539	50-100	Luxuriant	>=70 %	Colourless	35-37°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	>=70 %	Colourless	35-37°C	18-24 Hours
Staphylococcus subsp. aureus	25923	50-100	Good	40-50%	Pale pink -red	35-37°C	18-24 Hours
Salmonella Paratyphi A	9150	50-100	Luxuriant	>=70 %	Colourless	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70 %	Pink to red with bile precipitate	35-37°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Good	40-50%	Pale pink to red	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	>=70 %	Colourless	35-37°C	18-24 Hours
Enterobacter aerogenes	13048	50-100	Luxuriant	>=70 %	Pale pink to red	35-37°C	18-24 Hours
Proteus vulgaris	13315	50-100	Luxuriant	>=70 %	Colourless	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. Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.), Standard Methods for the Examination of Water and Wastewater, 1985, 16th ed., A.P.H.A., Washington, D.C.
- 2. Rappaport F. and Henigh E., 1952, J. Clin. Path., 5:361.
- International Organization for Standardization (ISO), 1990, Draft ISO/DIS 9308-2.
- Harrigan W.F. and McCance M.E. (Eds.), 1976, Laboratory Methods in Food and Dairy Microbiology, Academic Press, London.
- 5. Holt, Harris and Teague, 1916, J. Infect. Dis., 18:596.
- 6. MacConkey, 1900, The Lancet, ii:20.
- 7. MacConkey, 1905, J. Hyg., 5:333.
- Speck M. (Ed.), 1985, Compendium of Methods for the Microbiological Examination of Foods, 2nd ed., APHA, Washington, D.C. 8.
- Greenberg A. E., Clesceri L. S. and Eaton A. D., (Eds.), 1992, Standard Methods for the Examination of Water and Wastewater, 18th ed., APHA, Washington, D.C.
- 10. Marshall R. (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th ed., APHA, Washington, D.C.
- 11. Karmali M.A., Petric M., Lim C., et al, 1985, J. Infect. Dis., 151:775.
- 12. Lior H. and Borcryk A., 1987, Lancet, i:333.
- 13. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only Revision: 08 Nov., 2019







