

TM 2219 - M-T 7 Agar

INTENDED USE

Recommended for growth and recovery of injured *E. coli* and total coliforms from water samples by membrane filtration.

PRODUCT SUMMARY AND EXPLANATION

MT7 Agar is recommended by APHA for water testing to detect *Escherichia coli* and total coliforms from water by membrane filtration technique.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	5.000
Yeast extract	3.000
Lactose	20.00
Tergitol 7	0.400
Polyoxyethylene ether	5.000
Bromothymol blue	0.100
Bromocresol purple	0.100
Agar	15.000

PRINCIPLE

Proteose peptone and yeast extract supplies nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients to the organisms. Lactose is the fermentable carbohydrate. Bromothymol blue and Bromocresol purple are the pH indicators. Lactose fermenting colonies turn yellow while lactose non-fermenters turn blue to purple. Tergitol 7 and Polyoxyethylene ether inhibits gram-positive organisms.

INSTRUCTION FOR USE

- Dissolve 48.60 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to greyish purple homogeneous free flowing powder
Appearance of prepared medium	: Greyish purple 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	Colour of Colony (membrane)	Incubation Temperature	Incubation Period



<i>Escherichia coli</i>	25922	50-100	good-luxuriant	>=50 %	yellow	35-37°C	18-24 Hours
<i>Klebsiella aerogenes</i>	13048	50-100	good-luxuriant	>=50 %	yellow	35-37°C	18-24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	good-luxuriant	>=50 %	yellow	35-37°C	18-24 Hours
<i>Salmonella Enteritidis</i>	13076	50-100	good-luxuriant	>=50 %	blue to purple	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	25923	>=10 ⁴	inhibited	0%	-	35-37°C	18-24 Hours

PACKAGING:

In pack size of 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. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

***For Lab Use Only**
Revision: 08 Nov., 2019

