

## TM 1952 – AGAR MEDIUM F (CRYSTAL VIOLET, NEUTRAL RED, BILE AGAR W/ GLUCOSE) (as per EP/BP)

### INTENDED USE

For detection and enumeration of Enterobacteria.

### PRODUCT SUMMARY AND EXPLANATION

It is selective medium recommended for detection of Enterobacteriaceae species as recommended by British Pharmacopoeia and is also cited as Agar medium, F. Mossel et al added glucose to the medium observing improved detection of coliforms. Incubation can be carried out at different temperatures and incubation time depending upon the group of *Enterobacteriaceae* to be recovered. The red colour is due to absorption of neutral red and a subsequent colour change of the dye when the pH of medium falls below 6.8.

### COMPOSITION

Ingredients	Gms / Ltr
Pancreatic digest of gelatin	7.000
Yeast extract	3.000
Lactose monohydrate	10.000
Bile salts	1.500
Glucose monohydrate	10.000
Sodium chloride	5.000
Neutral red	0.030
Crystal violet	0.002
Agar	15.000

### PRINCIPLE

Gelatin and yeast extract provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other nutrients essential for bacterial metabolism. This media is selective due to presence of the inhibitors; bile salts and crystal violet. Crystal violet inhibits gram-positive organisms especially Staphylococci. Neutral red indicator helps to detect lactose monohydrate and glucose monohydrate fermentation. Lactose and glucose fermenting strains grow as red or pink and may be surrounded by a zone of acid precipitated bile. Sodium chloride maintains the osmotic equilibrium in the medium.

### INSTRUCTION FOR USE

- Dissolve 50.12 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml purified /distilled water.
- Heat to boiling to dissolve the medium completely.
- DO NOT HEAT IN AN AUTOCLAVE. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium	: Reddish purple coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.4±0.2

## INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
<i>Enterobacter aerogenes</i>	13048	50 -100	Good-luxuriant	$\geq 50\%$	Pink-red	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50 -100	Good-luxuriant	$\geq 50\%$	Pink-red	35-37°C	18-24 Hours
<i>Salmonella Enteritidis</i>	13076	50 -100	Good-luxuriant	$\geq 50\%$	Light-pink	35-37°C	18-24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	$\geq 10^3$	Inhibited	0 %	-	35-37°C	18-24 Hours
<i>Escherichia coli</i>	8739	50 -100	Luxuriant	$\geq 50\%$	Pink-red	35-37°C	18-24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	6538	$\geq 10^3$	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. The British Pharmacopoeia 2008, The Stationery Office. British Pharmacopoeia.
2. Mossel D.A.A., Mengerink W.H.J. & Scholts H.H., 1962, J. Bacteriol, 84 : 381.
3. Mossel D.A.A. et al, 1978, Lab. practice, 27 No. 12 : 1049
4. Mossel D.A.A. et al, 1979, Food Protect., 42 : 470. 5. Mossel D.A.A. et al, 1986, J. Appl. Bact., 60 : 289



<b>GMP</b> Good Manufacturing Practices Certified	<b>IVD</b> For In Vitro Diagnostic Use	<b>QTY.</b> Quantity	<b>LOT/ B. NO.</b> Lot / Batch Number	<b>REF</b> Catalogue Number	 Manufacturer
 Temperature Unit	<b>EC REP</b> Authorized Representative <small>MedNet GmbH Buckstrasse 10 48163 Münster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

**\*For Lab Use Only**  
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