

## **CM 20467 - CHROMOGENIC SALMONELLA AGAR, MODIFIED**

### **INTENDED USE**

For identification and differentiation of Salmonella species from among the members of Enterobacteriaceae, especially Proteus species.

### **PRODUCT SUMMARY AND EXPLANATION**

Chromogenic Salmonella Agar, Modified is used for differentiation of Salmonella species from Proteus species and other enteric bacteria. The original formulation is based on the novel characteristic of Salmonella species to produce acid from propylene glycol, which is detected by indicators present in the medium. This media is unique because it is not based on acid production by propylene glycol. This media like many other media such as SS Agar, XLD Agar, recommended for the identification and differentiation of Salmonella species are based on lactose fermentation.

### **COMPOSITION**

Ingredients	Gms / Ltr
Agar	12.000
Casein enzymic hydrolysate	8.000
Yeast extract	5.000
Sodium chloride	5.000
Chromogenic mixture	4.320
Peptic digest of animal tissue	4.000
Lactose	3.000
Sodium deoxycholate	1.000
Neutral red	0.020

### **PRINCIPLE**

Casein enzymic hydrolysate, peptic digest of animal tissue and yeast extract supports the luxuriant growth of bacteria by providing carbonaceous, nitrogenous, vitamin B complex and other essential nutrients. Lactose acts as a carbon and energy source. Sodium deoxycholate inhibits gram positive organisms rendering the medium selective for enteric microorganisms. The chromogenic mixture incorporated in the medium yields pink to red colonies of Salmonella. E.coli and K.pneumoniae exhibits a characteristics light blue to purple colour, due to presence of the enzyme specific for chromogenic substrate. Other enteric gram-negative bacteria form colourless colonies.

### **INSTRUCTION FOR USE**

Dissolve 42.34 grams in 1000 ml distilled water.

Gently heat to boiling with swirling to dissolve the medium completely. Do not autoclave.

Cool to 45-50°C.

Mix well before pouring in to sterile Petri plates

### **QUALITY CONTROL SPECIFICATIONS**

Appearance of powder	:	Light yellow to beige homogeneous free flowing powder
Appearance of prepared medium	:	Light yellow coloured, clear to slightly opalescent gel
pH (at 25°C)	:	7.3±0.2

### **INTERPRETATION**

Cultural characteristics observed after an incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Recovery	Incubation Temp.	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Luxuriant	Light purple	>=50%	35 ± 2°C	24-48 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Luxuriant	Blue-violet	>=50%	35 ± 2°C	24-48 Hours
<i>Proteus mirabilis</i>	25933	50-100	Luxuriant	Colourless	>=50%	35 ± 2°C	24-48 Hours
<i>Salmonella typhimurium</i>	14028	50-100	Luxuriant	Pink-red	>=50%	35 ± 2°C	24-48 Hours
<i>Salmonella enteritidis</i>	13076	50-100	Luxuriant	Pink-red	>=50%	35 ± 2°C	24-48 Hours
<i>Salmonella typhi</i>	6539	50-100	Luxuriant	Colourless	>=50%	35 ± 2°C	24-48 Hours
<i>Shigella flexneri</i>	12022	50-100	Luxuriant	Colourless	>=50%	35 ± 2°C	24-48 Hours
<i>Staphylococcus aureus</i>	25923	≥ 1000	Inhibited	-	0%	35 ± 2°C	24-48 Hours

#### PACKAGING:

Inpacksizeof100gm & 500gm bottles.

#### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°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.

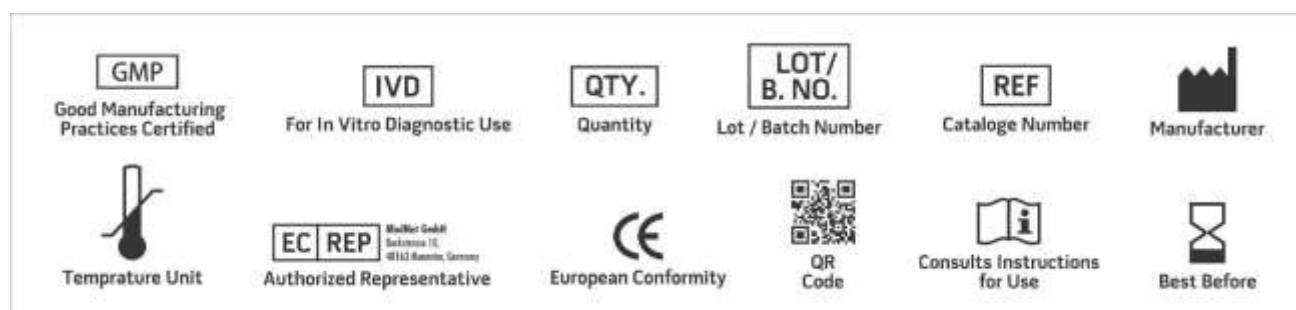
Product Deterioration: Do not use if powder show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### DISPOSAL

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

#### REFERENCES

1. Rambach A., 1990, Environment. Microbiol, 56:301.
2. Greenberg A.E., Trussel R.R., Clesceri L.S., (Eds.), (1985), Standard Methods for the Examination of water and waste water, 16th ed., APHA, Washington, D.C.



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

\*ForLabUse Only

