

CM 21,130 - MacCONKEY BROTH W/ NEUTRAL RED (DOUBLE STRENGTH) (VEG.)

INTENDED USE

For primary isolation of coliforms from large samples such as water or waste water

PRODUCT SUMMARY AND EXPLANATION

MacConkey HiVeg Broth (Double strength) w/ Neutral Red is a modification of MacConkey Broth (Double strength) w/ Neutral Red. It is prepared by replacing animal based peptones with veg peptones and it is free from BSE/TSE risk. MacConkey Broth is widely used as a differential medium for detection and enumeration of coliforms from a wide variety of clinical, food and water samples. Identification is based on colour change of the medium due to the presence of the indicator neutral red.

MacConkey Veg Broth (Double Strength) w/ Neutral Red is recommended for the primary isolation of coliforms from large samples such as water and wastewater. The medium turns pink in case of lactose fermentors and yellow in case of lactose- non- fermenters, due to neutral red. The medium has same composition in double strength to that of MacConkey Broth, which contains neutral red as an indicator and is considered as a standard medium for the primary isolation as well as presumptive identification of coliform-aerogenes group of organisms in food and water.

COMPOSITION

Ingredients	Gms / Ltr
Veg peptone	47.000
Lactose	20.000
Synthetic detergent	3.000
Sodium chloride	10.000
Neutral red	0.150

PRINCIPLE

Veg peptone provides necessary nitrogen source. Lactose serves as the fermentable carbohydrate source. Sodium chloride maintains the osmotic balance of the cells. The selective action of these media is attributed to the presence of synthetic detergent, which is inhibitory to most species of gram-positive bacteria. Gram-negative bacteria usually grow well on these media and are differentiated by their ability to ferment lactose. The colour change of the medium shown by lactose-fermenters is due to production of acid from lactose and a subsequent colour change of the indicator dye when the pH of the media falls below 6.8. Lactose non-fermenting strains, such as Shigella and Salmonella do not alter the appearance of the media.

INSTRUCTION FOR USE

Dissolve 80.15 grams in 1000 ml distilled water.

Heat if necessary to dissolve the medium completely.

Distribute into test tubes with inverted Durham tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

Cool the tubes before inoculation.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Light yellow to pink coloured homogeneous free flowing powder.
Appearance of prepared medium : Red coloured clear solution without any precipitate.
pH (at 25°C) : 7.4±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid	Gas	Incubation Temperature	Incubation Period
Enterobacter aerogenes	13048	50-100	Luxuriant	Positive reaction	Positive reaction	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	Positive reaction	Positive reaction	35-37°C	18-24 Hours
Salmonella choleraesuis	12011	50-100	Fair to good	Negative reaction	Negative reaction	35-37°C	18-24 Hours
Staphylococcus aureus	25923	≥103	Inhibited	Negative reaction	Negative reaction	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.

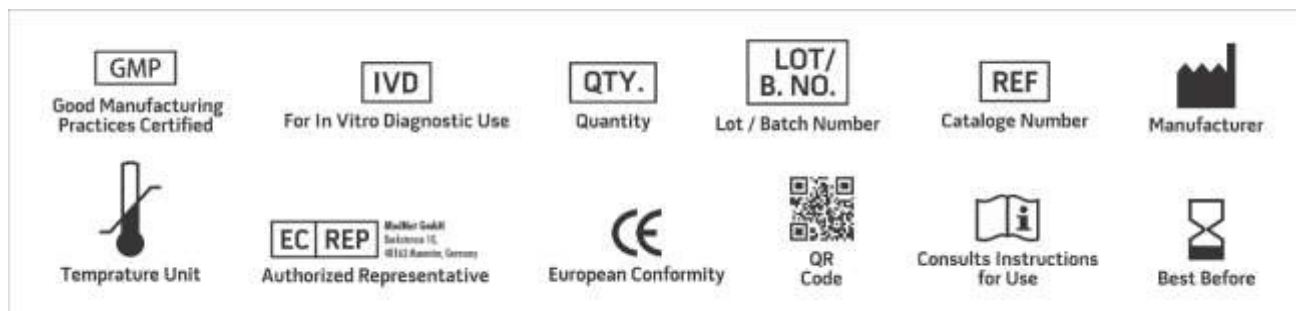
DISPOSAL

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

REFERENCES

1. MacConkey, 1900, The Lancet, ii:20.
2. MacConkey, 1905, J. Hyg., 5:333.





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

