CM 20328 - MR-VP MEDIUM (BUFFERED GLUCOSE BROTH)
(IS : 5887 (Part I, III and IV) 1976, reaffirmed 2005)

INTENDED USE
For differentiation of coli-aerogenes group by MR-VP test.

PRODUCT SUMMARY AND EXPLANATION
MR-VP Medium isusedforthe differentiation of Colon-aerogenes family of bacteria that could be divided into two groups based on their action in a peptone and dextrose medium. The MR and VP tests appear in the identification scheme for Enterobacteriaceae, important isolates in clinical microbiology and food and dairy microbiology testing. MR-VP Broth is also known as Methyl Red-Voges-Proskauer Medium. This formulation is recommended by BIS for the detection of E. coli, Vibrio parahaemolyticus and Bacillus cereus responsible for food poisoning.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	5.000
Dipotassium phosphate	5.000
Dextrose	5.000

PRINCIPLE

Methyl red-positive organisms produce high levels of acid during fermentation of dextrose, overcome the phosphate buffer system and produce a red color upon the addition of the methyl red pH indicator. In the Voges-Proskauer test, the red color produced by the addition of potassium hydroxide to cultures of certain microbial species is due to the ability of the organisms to produce a neutral end product, acetoin (acetylmethylcarbinol), from the fermentation of dextrose. The acetoin is oxidized in the presence of oxygen and alkali to produce a red color. This is a positive Voges-Proskauer reaction.

INSTRUCTION FOR USE
1. Dissolve 15.00 grams in 1000ml distilled water.
2. Distribute in testtubes in 3ml amounts or as desired.
3. Sterilize by autoclaving at 15 psi (121°C) for 10 minutes.
4. Cool at room temperature prior to use.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder : Cream coloured, Homogeneous free flowing powder
Appearance of Prepared medium : Light yellow coloured, clear solution without any precipitate
pH (at 25°C) : 7.5± 0.2

INTERPRETATION
Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	MR Test	VP Test	Incubation temp.	Incubation period
Escherichia coli	25922	50-100	Luxuriant	Positive reaction, Red colour	Negative reaction, No	35±2°C	48 Hours

					change		
Enterobacter aerogenes	13048	50-100	Luxuriant	Negative reaction, Yellow colour	Positive reaction, eosin pink/red colour	35±2°C	48 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	Negative reaction, Yellow colour	Positive reaction, eosin pink/red colour	35±2°C	48 Hours
Vibrio parahaemolyticus	17802	50-100	Luxuriant	Negative reaction, Yellow colour	Negative reaction, No change	35±2°C	48 Hours
Salmonella Typhi	6539	50-100	Luxuriant	Positive reaction, Red colour	Negative reaction, No change	35±2°C	48 Hours

PACKAGING

In100&500gm packaging size.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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 powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

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

REFERENCES

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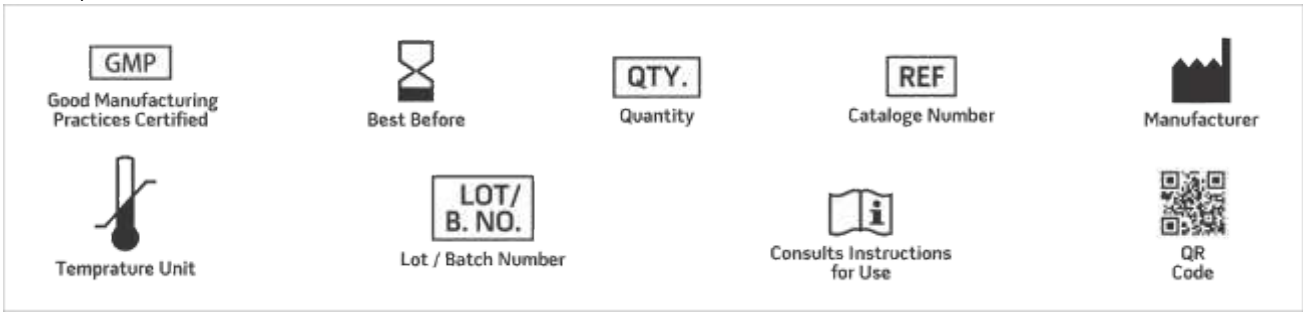

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*ForLab UseOnly