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PRODUCT DATA SHEET

BUFFERED GLUCOSE BROTH (MR - VP MEDIUM)

TM 324

INTENDED USE

Used in differentiation of bacteria by MR-VP test

COMPOSITION

Ingredients	Gms/L
Monopotassium phosphate	5.000
Dextrose	5.000
Pancreatic digest of casein	3.500
Peptic digest of animal tissue	3.500

PRODUCT SUMMARY AND EXPLANATION

BUFFERED GLUCOSE BROTH (MR - VP MEDIUM) is used for the differentiation of Colon-aerogenes family of bacteria 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.

When tested with the pH indicator methyl red, the "coli" group produced high acidity while the "aerogenes" group produced a less acid reaction. The test to detect high-acid end products is known as the Methyl Red (MR) test. A color reaction occurs when certain cultures, incubated in a medium containing peptone and dextrose, are treated with potassium hydroxide and exposed to air.

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.

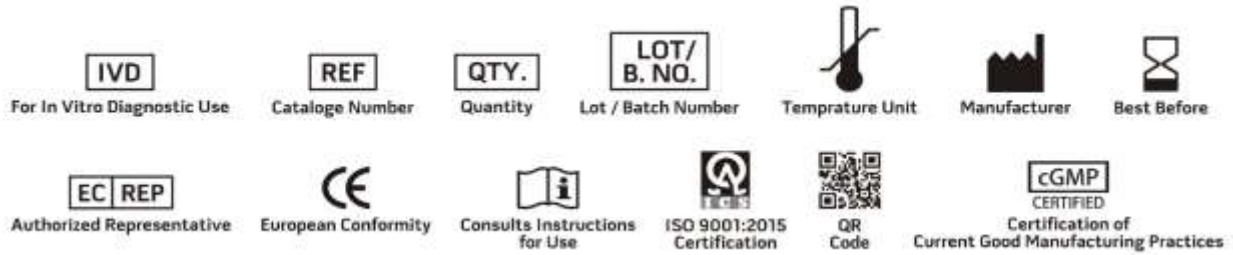
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NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices