CM 20376 – CARBOHYDRATE CONSUMPTION BROTH BASE

INTENDED USE

For cultivation and differentiation of Listeria species.

PRODUCT SUMMARY AND EXPLANATION

Carbohydrate Consumption Broth isused for the cultivation and differentiation of Listeria species and formulated as per Atlas. It is also recommended by FDA and ISO with a slight difference in the concentration of bromocresol purple. Differentiation is based on fermentation of glucose, xylose, rhamnose, ribose, a-methyl-D-mannoside and mannitol. Carbohydrate utilization test: Inoculate each kind of carbohydrate fermentation broth with one loopful of inoculum. Incubate for 7 days at 37°C. Observe daily for acid induced colour change and gas formation. Sometimes weak positive reactions may occur after 48 hours of incubation.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Sodium chloride	5.000
Beef extract	1.000
Bromocresol purple	0.100

PRINCIPLE

Proteosepeptone and beef extract in the medium provide carbon and nitrogen compounds including essential amino acids, vitamins and trace ingredients for bacterial metabolism. Bromocresol purple is the pH indicator, which indicates acid production by turning yellow in colour.

INSTRUCTION FOR USE

Dissolve 16.1 grams in 990 ml purified / distilled water.
Heat if necessary to dissolve the medium completely.
Dispense into tubes containing inverted Durhams tubes.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
Aseptically add 10 ml separately sterilized carbohydrate solution to give a final concentration of 0.5%. Mix well.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to beige homogeneous free flowing powder.
Appearance of prepared medium	: Purple coloured, clear solution without any precipitate.
pH (at 25°C)	: 6.8±0.2

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	w/o carbohydrate acid	w/o carbohydrate gas	w/ rhamnose (acid)	w/ rhamnose (gas)	Incubation Temperature	Incubation Period

Escherichia coli	25922	50-100	Good-luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Positive reaction	35-37°C	18-48 Hours
Listeria monocytogenes subsp. serovar 1	19111	50-100	Good-luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-48 Hours
Listeria monocytogenes	19112	50-100	Good-luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-48 Hours
Listeria monocytogenes	19117	50-100	Good-luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-48 Hours
Staphylococcus aureus	25923	50-100	Good-luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-48 Hours
Listeria monocytogenes	19118	50-100	Good-luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-48 Hours

PACKAGING:

Inpacksizeof500 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.

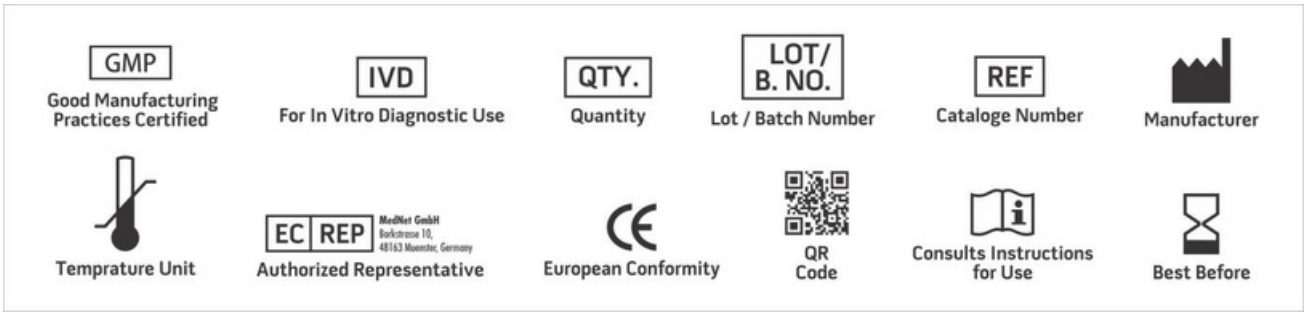
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Atlas R.M.,2004, Handbook of Microbiological Media, 3rd Edition, CRC Press, Washington D. C.
2. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, D.C.
3. International Organization for Standardization (ISO), 1993, Draft ISO/DIS 10560.



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

*For LabUse Only