TM 1529 – DEOXYCHOLATE CITRATE AGAR W/ 1.5% AGAR

INTENDED USE

For the isolation of enteric pathogens.

PRODUCT SUMMARY AND EXPLANATION

Deoxycholate Lactose Agar is a modification of Deoxycholate Agar as described by Leifson and prepared according to formula specified in Standard Methods for Examination of Dairy Products, Water and Waste Water and Food for the detection of coliform bacilli. It differs from Deoxycholate Agar by its decreased concentration of sodium deoxycholate. Deoxycholate Citrate Agar w/ 1.5% Agar is similar to but less selective and inhibitory than Deoxycholate Lactose Agar. However, the colonial characteristics are identical on the two media. The less inhibitory media is often preferable when Shigellae are being sought as well as Salmonellae.

COMPOSITION

Ingredients	Gms / Ltr
Beef extract	5.000
Peptic digest of animal tissue	5.000
Lactose	10.000
Sodium deoxycholate	2.500
Sodium citrate	5.000
Sodium thiosulphate	5.000
Ferric citrate	1.000
Neutral red	0.025
Agar	15.000

PRINCIPLE

The medium consists of Beef extract and peptone which serves as the sources of essential nutrients. Coliforms as well as gram-positive bacteria are greatly suppressed due to the presence of sodium deoxycholate, sodium citrate and ferric citrate. Lactose is the fermentable carbohydrate in the medium. Lactose fermenters utilize lactose and produce acidic conditions around the lactose fermenting colony. This acidity causes the pH indicator, neutral red, to change its colour to red. These colonies usually are also surrounded by a turbid zone of precipitated deoxycholic acid due to acidification of the medium. Sodium deoxycholate combines with neutral red in an acidic environment, causing the dye to go out of the solution with the subsequent precipitation of deoxycholate.

INSTRUCTION FOR USE

- Dissolve 48.52 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Avoid excessive or prolonged heating as it is detrimental to the medium.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium : Reddish orange coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	50-100	Inhibited	0%	-	35 -37 °C	18-24 Hours
Escherichia coli	25922	50-100	Good-luxuriant	>=50%	Pink w/bile precipitate	35 -37 °C	18-24 Hours
Enterobacter aerogenes	13048	50-100	Good-luxuriant	>=50%	Pink	35 -37 °C	18-24 Hours
Enterococcus faecalis	29212	>=10^3	Inhibited	0%	-	35 -37 °C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Good-luxuriant	>=50%	Colourless	35 -37 °C	18-24 Hours

PACKAGING:

In pack size of 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.

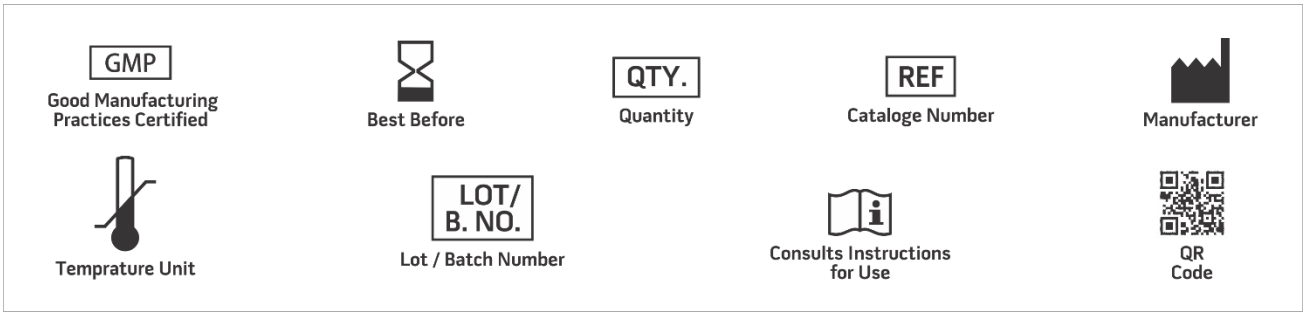
DISPOSAL

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

REFERENCES

1. Leifson, 1935, J. Path. Bact., 40:581.
2. Richardson, (Eds.), 1985, Standard Methods for the Examination of Dairy products, 15th Ed. APHA, Washington, D.C.

3.Greenberg A. E., Eaton A. D., Clesceri L. S., (Eds.), 1998, Standard Methods for the Examination of Water and Waste Water, 20th Ed., APHA, Washington, D.C.
4. Speck M. L., (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd ed., APHA, Washington, D.C.
5. Frieker C.R., 1987, J. Appl. Bact., 63:99.



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

***For Lab Use Only**

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