CM 22051 - CHROMOGENIC EC O157:H7 AGAR MODIFIED

INTENDED USE

Recommendedfor isolation and differentiation of Escherichia coli O157:H7 from food, environmental and clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Escherichiacoli O157:H7belongs to theEnterohemorrhagic Escherichia coli (EHEC) group and it predominates as a food borne pathogen. E.coli O157: H7 was first recognized as a human pathogen in 1982 when two outbreaks of hemorrhagic colitis were associated with consumption of undercooked ground beef that has been contaminated with this organism. Chromogenic EC O157:H7 Agar is a chromogenic medium recommended for the isolation and differentiation of E.coli O157:H7 from food and environmental samples. Chromogenic EC O157:H7 Agar is based on the formulation described by Rappaport and Henigh. The medium contains sorbitol as a fermentable carbohydrate and a chromogenic mixture instead of lactose and indicator dyes respectively. The chromogenic substrate is specifically and selectively cleaved by Escherichia coli O157: H7 resulting in a dark purpleto magenta coloured moiety. E.coli give bluish green coloured colonies.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	8.000
Sorbitol	7.000
Sodium lauryl sulphate	0.100
Bile Salts mixture	1.500
Chromogenic mixture	0.250
Agar	12.000

PRINCIPLE

Tryptone provides carbonaceous, nitrogenous and growth nutrients. Sodium chloride maintains osmotic equilibrium. Bile salts mixture and Sodium lauryl sulphate inhibits gram-positive organisms. Potassium tellurite selects the serogroups and inhibits Aeromonas species and Providencia species.

INSTRUCTIONFOR USE

Dissolve 28.85 grams in 1000 ml distilled water.
Heat to boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.
Cool to 45- 50°C. Mix well and pour into sterile Petri plates.
This medium can be made more selective by aseptically adding 0.25 ml of rehydrated contents of one vial of (1% Potassium Tellurite Solution) to 1000 ml molten and cooled medium (45-50°C).

QUALITY CONTROL SPECIFICATIONS

Appearance of powder	:	Cream to yellow homogeneous free flowing powder
Appearance of prepared medium	:	Light Amber coloured, clear to slightly opalescent gel forms in Petri plates
pH (at 25°C)	:	6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the medium	Incubation Temp.	Incubation Period
Escherichia coli	25922	50-100	luxuriant	>=50%	Bluish green	35-37°C	18- 24 Hours
Escherichia coli O157:H7	12900	50-100	luxuriant	>=50%	Dark purple	35-37°C	18- 24 Hours
Klebsiella pneumoniae	13883	50-100	luxuriant	>=50%	magenta Colourles s-mauve, mucoid	35-37°C	18- 24 Hours
Pseudomonas aeruginosa	27853	50-100	luxuriant	>=50%	Colorless	35-37°C	18- 24 Hours
Staphylococcus aureus subsp. aureus	25923	>=10^3	luxuriant	>=50%	-	35-37°C	18- 24 Hours
Bacillus subtilis	6633	>=10^3	luxuriant	>=50%	-	35-37°C	18- 24 Hours

PACKAGING:

Inpacksizeof100gm & 500gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°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.

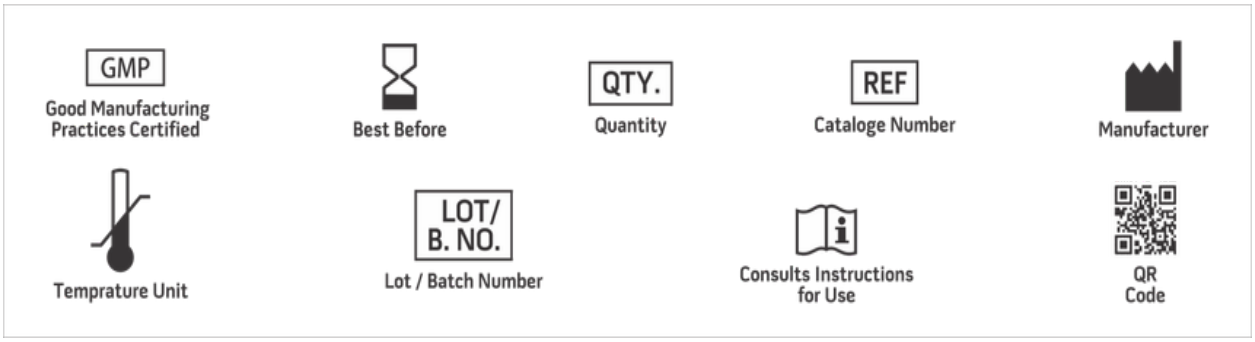
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1.DownesF. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
2. Rappaport F. and Henigh E., 1952, J. Clin. Pathol., 5:361.



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

*ForLabUse Only