TM 2460- TRYPTONE BILE GLUCURONIC AGAR (TBX AGAR)

INTENDED USE

For the detection and enumeration of Escherichia coli in foodstuffs, animal feed, water and clinical samples without further confirmation on membrane filter or by indole reagent.

PRODUCT SUMMARY AND EXPLANATION

Tryptone Bile Agar is to detect Escherichia coli in foods, where recovery of E. coli is faster, more reliable and accurate.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	20.000
Bile salts mixture	1.500
X-ß-D-Glucuronide	0.075
Dimethyl sulfoxide	3.000
Agar	15.000

PRINCIPLE

Tryptone provides carbon, nitrogen compounds, long chain amino acids, vitamins and other essential growth nutrients to the organisms. Bile salts mixture inhibits gram-positive organisms. The surface of the plated medium is dried before use. Most of the E. coli strains can be differentiated from other coliforms by the presence of enzyme glucuronidase, which is highly specific for E. coli. The chromogenic agent X-glucuronide used in this medium helps to detect glucuronidase activity of E. coli. E. coli cells absorb X-glucuronide and the intracellular glucuronidase enzyme splits the bond between the chromophore and the glucuronide. The released chromophore gives bluish green colouration to the E. coli colonies.

INSTRUCTION FOR USE

- Dissolve 39.6 g in 1000 ml distilled water.
- Gently heat in a boiling water bath or in flowing steam until the medium is completely dissolved.
- Autoclave at 15 psi (121°C) for 15 min.
- Cool to 45-50°C in a water bath, mix gently and pour into sterile petri dishes.

Note: Dilute food samples 1:5 or 1:10 with 0.1% (w/v) sterile Peptone Water and homogenize in a blender or a stomacher. Pipette 0.5 ml or 1.0 ml of the homogenized food sample on to the plate and spread with sterile glass spreader. Incubate the plates at 30°C for 4 hours and then at 44°C for 18 hours.

QUALITY CONTROL SPECIFICATIONS

Appearance of powder	:	Cream to yellow colour, homogeneous free flowing powder
Appearance of prepared medium	:	Light yellow colour, clear to slightly opalescent gel
pH (at 25°C)	:	7.2± 0.2

INTERPRETATION

Productivity: Cultural characteristics observed after an incubation at 44±1°C for 21±3 hours. Recovery rate is considered as 100% for bacteria growth on Reference Medium - Soyabean Casein Digest Agar (Tryptone Soya Agar).
Specificity: Cultural characteristics observed after an incubation at 44±1°C for 21±3 hours.
Selectivity: Cultural characteristics observed after an incubation at 44±1°C for 21±3 hours.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Recovery	Incubation Temperature	Incubation Period
Productivity							
Escherichia coli	25922	50-100	Luxuriant	Blue	>=50%	44±1°C	21±3 Hours
Escherichia coli	8739	50-100	Luxuriant	Blue	>=50%	44±1°C	21±3 Hours
Escherichia coli	13216	50-100	Luxuriant	Blue	>=50%	44±1°C	21±3 Hours
Specificity							
Citrobacter freundii	43864	10^3 -10^4	Luxuriant	White to green-beige	--	44±1°C	21±3 Hours
Pseudomonas aeruginosa	27853	10^3 -10^4	Luxuriant	White to green-beige	--	44±1°C	21±3 Hours
Selectivity							
Enterococcus faecalis	19433	≥ 10^3	Inhibited	--	--	44±1°C	21±3 Hours
Enterococcus faecalis	29212	≥ 10^3	Inhibited	--	--	44±1°C	21±3 Hours

PACKAGING

In pack size of 500gm bottles.

STORAGE

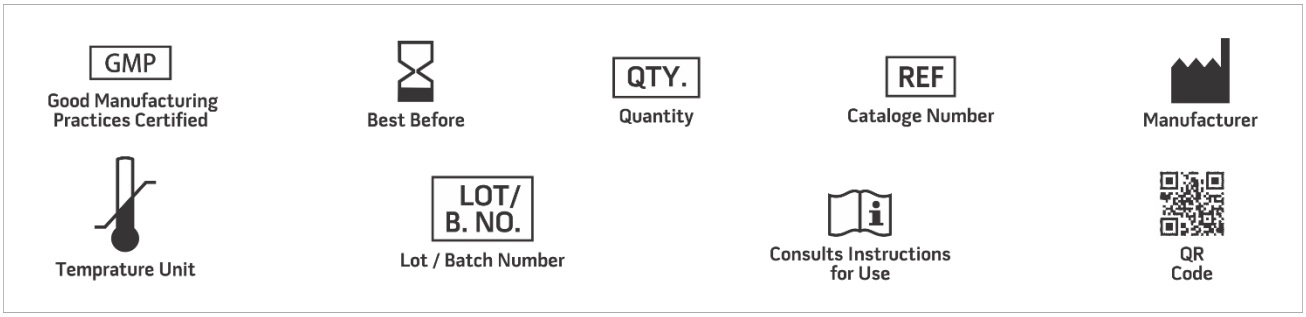
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 10-25°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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 if powder 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. Gross R.J. and Rowe B. (1985) J. Hyg. Lond. 95. 531-550.
2. Anderson J.M. and Baird-Parker A.C. (1975) J. Appl. Bact. 39. 111-117.
3. Feng P.C.S. and Hartman P.A. (1982) Appl. Environ. Microbiol. 43. 1320-1329.
4. Hansen W. and Yourassowsky E. (1984) J. Clin. Microbiol. 20. 1177-1179.
5. Ratnam S., March S.B., Almed R., Bezanson G.S. and Kasatiya S. (1988) J. Clin. Microbiol. 26. 2006-2012.



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

***For Lab Use Only**

Revision: 6 August, 2025