

BCIG Agar (Color T.B.X. Agar)



Medium used for the identification and cultivation of *Escherichia coli* in food.

*Equally use with MFDS (MB-B0790K) and Color T.B.X. Agar (MB-C1622).

• CONTENTS (Liter)

Tryptone	20.0 g
Bile Salts No.3	1.5 g
X-Glucuronide	0.075 g
Agar	15.0 g
Final pH = 7.2 ± 0.2 at 25°C	

• PROCEDURE

Suspend 36.58 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

• INTERPRETATION

BCIG Agar (Color T.B.X. Agar) is a medium used for the identification and cultivation of *Escherichia coli* in food. Tryptone provides the essential growth nutrients to microorganisms. Bile salts No.3 inhibits Gram-positive organisms. Agar is the solidifying agent. X-Glucuronide helps to detect glucuronidase activity. The enzyme β-D-Glucuronidase which has been shown to be highly specific for *Escherichia coli* splits the bond between the chromophore and the glucuronide. For this reason, *Escherichia coli* colonies are colored blue-green. However, approximately 3 - 4% of *E.coli* including *E.coli* O157 strains are glucuronidase negative, which appears as colonies colorless.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 44 ± 1°C for 24 ± 2 hours. If the presence of stressed cells is suspected pre-incubate at 37°C for 4 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

Prepared medium

Appearance: clear to slightly opalescent

Color: light amber

Incubation conditions: 44 ± 1°C / 24 ± 2 hours

(If the presence of stressed cells is suspected pre-incubate 37°C / 4 hours)

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Escherichia coli</i>	25922	50-100	good	blue-green colonies
<i>Salmonella typhimurium</i>	14028	50-100	good	colorless colonies
<i>Enterococcus faecalis</i>	29212	≥10 ³	inhibited	-
<i>Bacillus cereus</i>	11778	≥10 ³	inhibited	-

• STORE

The powder is very hygroscopic. Store the powder at 2 - 8°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

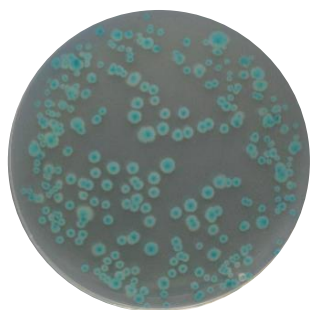
• REFERENCES

1. Anderson J.M. and Baird-Parker A.C. (1975) J. Appl. Bact. 39. 111-117.
2. Feng, P.C. S. and P. A. Hartmann. 1982. Appl. Environ. Microbiol. 43:1320-1329.
3. Gross, R. J. and B. Rowe. 1985. J. Hyg. Camb. 95:513-550.
4. Ottaviani, F., Ottaviani, M., Agosti, M., (1997) Esperienze su un agar selettivo e differenziale per *Listeria monocytogenes*. Industrie alimentari, XXXVI, luglio-agosto, 888.
5. ISO 16649-2 (2001): Microbiology of food and animal feeding stuffs-Horizontal method for the enumeration of *E. coli* – Part 2: colony count technique at 44°C using 5-bromo-4-chloro-3-indolyl-β-D-glucuronic acid.
6. Refer to the MFDS.

• PACKAGE

Cat. No : MB-B0790 BCIG Agar (Color T.B.X. Agar)	500 G
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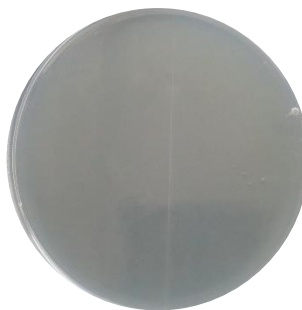
• MICROBIAL CULTURE IMAGES



Escherichia coli
ATCC 25922



Salmonella typhimurium
ATCC 14028



Enterococcus faecalis
ATCC 29212



Bacillus cereus
ATCC 11778

Incubation conditions : 44 ± 1°C / 24 ± 2 hours (Pre-incubation 37°C / 4 hours)