OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

OXYcrome Chromogenic E Coli Agar

Principle

Chromogenic E coli Agar is a selective medium recommended for the detection and enumeration of *Escherichia coli* in clinical, water and food samples. The media is composed of tryptone, special peptone, bile salts, disodium hydrogen phosphate, sodium dihydrogen phosphate, sodium chloride, X-Glucuronide and agar. Tryptone and spherical peptone provide nitrogenous substances and other essential growth nutrients for the organisms. Bile salts inhibit gram-positive organisms. Sodium chloride maintains osmotic balance and phosphate act as buffering agent. The chromogenic substance X-glucuronide used to detect glucuronidase activity of E.coli. E.coli cells absorb X-glucuronide and the intracellular glucuronidase enzyme cleaves the bond between the chromophore and the glucuronide. The released chromophore gives bluish green colouration to the E.coli colonies.

Use: For the detection and enumeration of Escherichia coli in foods without further confirmation on membrane filter or by indole reagent

Contents*

Ingredients	Gram/Litre
Tryptone	14.000
Special peptone	5.000
Bile salt	1.500
Disodium hydrogen phosphate	1.000
Sodium dihydrogen phosphate	0.600
Sodium Chloride	2.400
X-Glucuronide	0.075
Agar	12.000
pH at 25˚C	7.2 ±0.2

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 36.60 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 121˚C for 15 minutes. Cool it to 45-50°C and distribute aseptically in petri plates and allow to solidify. Ensure complete solidification and inoculate test sample aseptically.

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Specimens types analyzed

Clinical and pathological samples, water and food samples

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**Light beige colored, free-flowing, homogeneous**
Reaction of 3.66% solution	**7.2 ±0.2 at 25 ˚C**
pH	**7.0- 7.4**
Gelling	**Firm comparable with 1.2% agar gel**
Color and clarity of ready medium	**Light amber, clear opalescent gel**
Growth Promotion properties	**Best at ≤ 100 CFU at 32-37 ºC for 18-72 h**
Indicative properties	**Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h**
Negative control	**Performed using sterile distilled water**

Different Microbial Response

Cultural characteristics observed after an incubation at 44 ± 2ºC for 18-24 hours. Inoculum 50-100 CFU.

Organism	ATCC no.	Growth	Colony color
Escherichia coli	**8739**	**Luxuriant**	**Bluish-green**
Salmonella typhimurium	**14028**	**Luxuriant**	**Colorless**
Staphylococcus aureus	**25923**	**Inhibited**	**--**

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Cultural characteristics observed after an incubation at 35 ± 2°C for 18-24 hours. Inoculum 50-100 CFU.

Organism	ATCC no.	Growth	Colony color
Escherichia coli	8739	Luxuriant	Bluish-green
Salmonella typhimurium	14028	Luxuriant	Colorless

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.
Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

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