OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

OXYcrome Chromogenic Bacillus Agar

Principle

The *Bacillus anthracis*, is the agent of anthrax, and *Bacillus cereus*, is most common food poisoning organisms. Chromogenic Bacillus Agar is based on the formulation of MYP Agar formulated by Mossel et al (1967) used for enumeration of *Bacillus cereus* and *Bacillus thuringiensis* when present foodstuffs. The medium contains peptone and meat extract, which provide nitrogenous compounds. Mannitol serves as the fermentable carbohydrate, which can be detected by phenol red. Mannitol fermenting organisms like *B. megaterium* yield yellow coloured colonies. The chromogenic mixture present in the medium is cleaved by the enzyme β-glucosidase found in *B.cereus* resulting in the formation of blue colonies. *B.thuringiensis* also grows as blue/green colonies on this medium as *B.cereus* and *B.thuringiensis* are biochemically identical. However, *B.cereus* shows flat colonies with distinct blue centers, and *B.thuringiensis* shows irregular margins. For the selective isolation of *B. cereus* or *B. thuringiensis* media is formulated with polymyxin.

Use: For the isolation and differentiation between various species of Bacillus by chromogenic method.

Contents*

Ingredients	Gram/Litre
Special Peptone	10.000
Meat extract	1.000
D-Mannitol	10.000
Sodium Chloride	10.000
Chromogenic mixture	3.200
Phenol	0.025
Red	15.000
Agar	7.2 ±0.2
pH at 25˚C	

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

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Directions: Dissolve 50.00 grams in 1000 ml distilled water. Boil 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. To increase selectivity add polymyxin B (50000 units/ 1000 ml of medium)

Specimens types analyzed

Clinical samples: urine, faeces, Water samples 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 5.00 % solution	**7.2 ±0.2 at 25 ˚C**
pH	**7.00- 7.40**
Gelling	**Firm comparable with 1.5% agar gel**
Color and clarity of ready medium	**Red color, 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**

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Different Microbial Response

Cultural characteristics observed after addition of polymyxin B and incubation at 34-38°C for 24 hours

Organism	ATCC	Growth w/o polymyxin B	Growth w/ polymyxin B	Colony morphology
Bacillus cereus	10876	Luxurious	Luxurious	large flat colony, light blue
Bacillus subtilis	6633	Luxurious	Inhibited	large flat colony, yellow to green
bacillus coagulans	7050	Luxurious	Inhibited	small raised colonies, pink
Staphylococcus aureus	25923	Luxurious	Inhibited	Normal pigmentation
Enterococcus faecalis	29212	Luxurious	Inhibited	Blue

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.**

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