OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

OXYcrome Chromogenic UTI Agar, Modified

Principle

Chromogenic UTI modified agar is used for presumptive identification of microorganisms causing urinary tract infections. The organisms mainly responsible for urinary tract infections are *Escherichia coli, Staphylococcus saprophyticus, Klebsiella species, Pseudomonas aeruginosa, Enterococcus faecalis, Proteus mirabilis*, and other coliforms. Media is composed or peptone, tryptone, chromogenic mixture and agar. Peptone provides nitrogenous and long chain amino acids. The chromogenic mixture contains chromogens and nutrients, the nutrients provide nitrogenous and carbonaceous compounds, vitamins and essential nutrients including tryptophan. While the chromogenic substance used in this media are X-Glucoside, Red-β-Dgalactopyranoside and isopropylthio-β-galactoside. X-Glucoside is a substrate for β-Glucosidase that, upon enzymatic action, gives an insoluble indigo-blue chromophore. Red-β-D-galactopyranoside is used for detection of beta-galactosidase. IPTG (isopropylthio-β-galactoside) is an inducer of β-galactosidase activity in bacteria and is suitable for use with X-gal or Red-gal to detect lac gene activity in *E. coli* or genetically modified microorganisms. The medium also contains tryptophan which acts as an indicator of tryptophan deaminase activity.
The Escherichia coli, produce ß-galactosidase enzyme activity, cleave red-β-D-galactopyranoside and forms pink color colonies. The enterococci cleave X-glucoside, by producing ß-glucosidase enzyme, and result in formation of blue colonies. However, some members of the coliform group, cleaves both the chromogen to form purple colonies. While Proteus, Morganella and Providencia spp. are differentiated on basis of tryptophan deaminase activity and generally forms brown color colonies. Some Enterobacter cloacae lack ßglucosidase, resulting in pink colonies, similar to Escherichia coli, and further differentiated on basis of indole production by using Kovac's reagent.

Use: For the enumeration and differentiation of enteric pathogens in urinary tract infections.

OXFORD LAB FINE CHEM LLP

ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Oxford
Range of
Laboratory Chemicals

Contents*

Ingredients	Gram/Litre
Special Peptone	18.000
Tryptone	4.000
Chromogenic mixture	17.000
Agar	15.000
pH at 25˚C	7.2 ±0.2

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

Directions: Dissolve 54.00 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.

Specimens types analyzed

Clinical samples: urine, faeces, Water samples and Food samples.

Precautions to be taken

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**

This document has been produced electronically and it is valid without signature.

OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor, Neminath Industrial Estate No.6, Navghar, Vasai (East), Palghar - 410210. Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com / info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Oxford
Range of Laboratory Chemicals

Reaction of 5.40 % 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	**Light beige, 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 35±2°C for 24 hours. Inoculum 50-100 CFU.

Organism	ATCC	Growth	Tryptophan deaminase activity	Colony color
Escherichia coli	8739	Luxuriant	Negative	Pinkish purple
Pseudomonas aeruginosa	27853	Luxuriant	Negative	Colorless or greenish pigment
Salmonella typhimurium	14028	Luxuriant	Negative	colorless
Klebsiella aerogenes	13048	Luxuriant	Negative	Purple
Proteus mirabilis	12453	Luxuriant	Positive	Cream color with brown halo
Staphylococcus aureus	25923	Luxuriant	Negative	Normal pigmentation
Enterococcus faecalis	14506	Luxuriant	Negative	Blue

- **Recovery ranges from ≥ 60% for all organisms**
- **Tryptophan deaminase activity, revealed with TDA Reagent indicating the presence of *Proteus* species**

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

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

1. **Baird R.B., Eaton A.D., and Rice E.W., (Eds.), (2015), Standard Methods for the Examination of Water and Wastewater, 23rd Ed., APHA, Washington, D.C.**
2. **Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015), Manual of Clinical Microbiology, 11th Edition. Vol. 1 Wastewater, 23rd Ed., APHA, Washington, D.C.**
3. **Salfinger Y., and Tortorello M.L., (2015), Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.**
4. **Pezzlo M, (1998), Detection of urinary tract infections by rapid methods. Clinical Microbiology Reviews, 1:268-280.**

Disclaimer:

****

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Oxford Lab Fine Chem LLP makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Oxford Lab Fine Chem LLP will not be responsible for damages resulting from use of or reliance upon this information.