OXALIS Diagnostics Pvt. Ltd.

Technical Data

Chromogenic UTI Agar 100 g / 500 g

Recommended for Presumptive identification of microorganisms causing urinary tract infection.

Product Presentation:

Cat No.	Product description	Pack Size
11030010100	Chromogenic UTI Agar	100 Gram
11030010100	Chromogenic UTI Agar	500 Gram

Principle

Chromogenic UTI 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, 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-D-galactopyranoside 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 ß-glucosidase, resulting in pink colonies, similar to Escherichia coli, and further differentiated on basis of indol production by using Kovac's reagent.

Composition

Ingredients	Grams / Litre
Peptone	15.0
Tryptophan	2.00
Chromogenic Mixture	15.0
Agar	15.0

Final pH (at 25°C) 6.8± 0.2
*Formula adjusted, standardized to suit performance parameters

Type of specimen
Clinical samples – Urine,faeces, water samples & food samples.

FACTORY & OFFICE
Plot No. D 76 , Five Star MIDC Area, Kagal.
Dist. Kolhapur -416216 (M.S.)India.
Email : oxalispvtltd@outlook.com

Telefax : 0231-2305072
Phone : 0231-2305062
Mobile : +91 8805867810

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Specimen Collection and Handling

Ensure that all samples are properly labeled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

- ✓ Suspend 47.50g of powder in 1000 mL distilled water.
- ✓ Mix thoroughly.
- ✓ Boil to dissolve the medium completely.
- ✓ Sterilize by autoclaving 121°C for 15 minutes or as per validated cycle.

Storage and Stability

- ✓ Store Dehydrated culture media in cool, dry place at 10°C-30°C away from direct light.
- ✓ Store prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Quality Control

Dehydrated Appearance: Light beige coloured, homogenous and free flowing powder.
Prepared Appearance: Light beige coloured slightly opalescent gel.

Growth Promotion Test: Cultural characteristics observed after an incubation of 18-24hours at 30°C - 35°C.
Cultural Response :

Organism	Type Culture	Growth	Colour of colony	Incubation Temperature	Incubation Period
Escherichia coli	**ATCC 8739**	Good	Pinkish Purple	30°C -35°C	24 Hours
Pseudomonas aeruginosa	**ATCC 10145**	Good	Colourless or greenish pigment	30°C -35°C	24 Hours
Salmonella enterica subsp. enterica serovar Typhimurium	**ATCC 14028**	Good	colourless	30°C -35°C	24 Hours
Staphylococcus aureus	**ATCC 25923**	Good	Normal pigment	30°C -35°C	24 Hours
Enterobacter aerogenes	**ATCC 13048**	Good	Purple	30°C -35°C	24 Hours
Proteus hauseri	**ATCC 13315**	Good	Cream colour with brown halo	30°C -35°C	24 Hours
Enterococcus faecalis	**ATCC 29212**	Good	Blue	30°C -35°C	24 Hours

Interpretation of Results

- ✓ After proper incubation, the plates should show isolated colonies in streaked areas and confluent growth in areas of heavy inoculation.
- ✓ In cultures for fungi, examine plates for fungal colonies exhibiting typical colour and morphology.

Warranty

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- ✓ This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Disposal

Disposal of infectious material and material that comes in to contact with clinical sample must be decontaminated and dispose of by autoclaving or incineration or established laboratory procedures.
User must be ensure safe disposal of used or unusable preparation of the products.

Reference

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), (2015), *Standard Methods for the Examination of Water and*

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

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