

## Technical Data Sheet

### Lactose TTC Agar + Tergitol® 7

Ordering number: 1.46185.0020 / 1.46185.0120

Lactose TTC Agar with Tergitol® 7 in 90 mm settle plates is used to confirm the presence and enumeration of *Escherichia coli* and coliform microorganisms in food and drinking water.

Ten settle plates each with a diameter of 90 mm are single-bagged in transparent, hydrogen peroxide impermeable sleeves (non-irradiated). The sleeves consist of polypropylene with a barrier of PE-EVOH-PE.

The formulation of the basic medium conforms to the specifications of the drinking water regulations and DIN EN ISO 9308-1.

### Mode of Action

Lactose TTC Agar with Tergitol® 7 is suitable for selective isolation and differentiation of coliform microorganisms. The addition of Tergitol® 7 inhibits the growth of gram-positive microorganisms and simultaneously suppresses the swarming of *Proteus* spp. The formation of acid by lactose utilization of the coliform organisms is shown by the bromothymol blue indicator changing color to yellow. *E. coli* and *E. aerogenes* and also most other coliform microorganisms reduce triphenyl tetrazolium chloride to an insoluble red formazan stain.

### Typical Composition

Peptone	10 g/l
Yeast Extract	6 g/l
Meat Extract	5 g/l
Lactose	20 g/l
Bromothymol Blue	50 mg/l
Sodium Heptadecyl Sulfate (Tergitol®) 7	0.1 g/l
2,3,5-Triphenyl Tetrazolium Chloride (TTC)	25 mg/
Agar	12 g/l

The appearance of the medium is clear and blue-green. The pH value is in the range of 7.0-7.4. The medium can be adjusted and/or supplemented according to the performance criteria required.

## Application and Interpretation

Each plate is provided with a label including a data matrix code for paperless plate identification. The code consists of a two-dimensional 20-digit serial number, which harbors the following information:

digits 1-3: here code 760 (corresponds to article 146185); digits 4-9: lot number; digits 10-14: batch specific individual number; digits 15-20: expiration date (YY/MM/DD).

Please check each agar plate before using it on sterility and pay attention to aseptic handling in order to avoid false positive results.

In accordance with DIN EN ISO 9308-1 100 ml of the sample is filtered and then the membrane filter is placed on Lactose TTC Agar with Tergitol® 7. The medium is incubated for  $21 \pm 3$  h (possibly also up to  $44 \pm 4$  h) at  $36 \pm 2$  °C. Lactose-positive bacteria tend to turn yellow under the membrane and are counted.

For additional identification of suspect colonies, they are subcultured on a non-selective agar (e.g. Tryptic Soy Agar) and then subjected to an oxidase test. Oxidase-negative microorganisms are counted as coliform bacteria. The suspect colonies are also subcultured in tryptophan broth and the indolyl formation capacity is tested. All oxidase-negative and indolyl-positive microorganisms are counted as *E. coli*.

## Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 °C to +25 °C.

Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

## Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

## Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
<i>Escherichia coli</i>	25922	10-100	20-24 h at 35-37 °C	good growth; yellow colonies, partially with red-brown center; yellow nutrient medium
<i>Citrobacter freundii</i>	8090	10-100	20-24 h at 35-37 °C	good growth; yellow colonies with red center; yellow nutrient medium
<i>Pseudomonas aeruginosa</i>	27853	10-100	20-24 h at 35-37 °C	good growth; red colonies; nutrient medium blue-green
<i>Enterococcus faecalis</i>	29212	10,000-100,000	20-24 h at 35-37 °C	No growth
<i>Staphylococcus aureus</i>	25923	10,000-100,000	20-24 h at 35-37 °C	No growth

Please refer to the actual batch related Certificate of Analysis.



## Literature

DIN EN ISO 9308-1 (2000): Water quality – Detection and enumeration of *Escherichia coli* and coliform bacteria – Part 1: Membrane filtration method.

EU GMP Medicinal Products for Human and Veterinary use (2008): Annex1 Manufacture of Sterile Medicinal Products.

Guidance for Industry (2004): Sterile Drug Products Produced by Aseptic Processing - Current Good Manufacturing Practice.

Official Journal of the European Community L 330/32 (1998): Directive 98/83/EC of the Council of 03 November 1998 on the quality of water intended for human consumption.

PDA Technical Report No. 13 (2014 Revised): Fundamentals of an Environmental Monitoring Program.

## Ordering Information

Product	Cat. No.	Pack size	Other packaging Size
Lactose TTC Agar + Tergitol® 7	1.46185.0020	20 x 90mm	120 x 90mm
<b>ReadyPlate™55 KIT</b> Lactose TTC Agar	1.46760.0150	KIT	
<b>ReadyPlate™55</b> Lactose TTC Agar	1.46759.0020	20x55mm	
Lactose TTC Agar with Tergitol® 7	1.07680.0500	500g	
<b>ReadyPlate™</b> TSA ISO, FDA-BAM, EP+USP	1.46431.0020	20 x 90mm	100 x 90mm
<b>GranuCult™</b> Tryptic Soy Agar EP,USP,JP,ISO FDA-BAM	1.05458.0500	500 g	5Kg
<b>Chromocult®</b> Coliform Agar	1.10426.0500	500 g	
KOVACS' indole reagent	1.09293.0100	100 ml	
<b>Bactident®</b> KOVACS' Indole Reagent	1.11350.0001	30 ml	
<b>Bactident®</b> Oxidase	1.13300.0001	50 strips	
<b>EZ-PAK®</b> Filters MCE 0.45µm 47mm white gridded	EZHAWG474	4 x 150 pcs	

\* The KIT Contains 150 x 55mm Media and 1 box x150 membrane Filters.

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