

Lactose TTC Tergitol-Agar

Version:	01/2020
M&S item numbers:	5200 (25 x 20 ml) and 5201 (4 x 250 ml)
Profile:	Glass tubes and polycarbonate bottles
Color:	Greenish-blue
Storage:	Dark and dry at 4 – 12 °C
Shelf life:	8 months

Description and application range

Lactose-TTC-Tergitol-Agar is used for the detection and enumeration of *Escherichia coli* and coliforms in drinking water and foodstuffs. The formulation complies with DIN EN ISO 9308-1 (2000). With Lactose-TTC-Tergitol-Agar coliform bacteria can be cultivated selectively and differentiated. Coliforms are able to use Lactose. The resulting acidic metabolite causes a color change of the pH-indicator Bromothymol blue from blue to yellow.

TTC is metabolized to red Formazan by most organisms forming reddish colonies. Tergitol-7 inhibits the growth of gram-positive bacteria. The medium is manufactured and quality tested in compliance with ISO 11133:2014 + Amd 1:2018 standard.

Typical composition

Lactose	20.0 g/l
Enzymatic digest of casein	10.0 g/l
Yeast extract	6.0 g/l
Meat extract	5.0 g/l
Tergitol-7	0.1 g/l
Bromothymol blue	0.05 g/l
2,3,5-Triphenyltetrazoliumchloride (TTC)	0.025 g/l
Bacteriological Agar	13.0 g/l

Final pH: 7.2 ± 0.1 at 25 °C

Microbiological quality control

Bacterial contamination

Incubation: aerobically at room temperature for 3 days, specification: no growth

Productivity quantitative analysis

Incubation: aerobically at 36 ± 2 °C for 21 ± 3 h, approx. inoculum: 80 – 120 CFU

Microorganism	Test strain	Specification	Appearance
<i>Escherichia coli</i>	WDCM 00179	$P_R \geq 0,5$	Yellow, later orange with yellow halo
<i>Enterobacter aerogenes</i>	WDCM 00175	$P_R \geq 0,5$	Yellow to brown, with yellow halo, occ. with reddish center

Selectivity qualitative analysis

Incubation: aerobically at 36 ± 2 °C for 21 ± 3 h, approx. inoculum: 10,000 – 1,000,000 CFU

Microorganism	Test strain	Specification	Appearance
<i>Enterococcus faecalis</i>	WDCM 00009	Full inhibition	-

Specificity qualitative analysis

Incubation: aerobically at 36 ± 2 °C for 21 ± 3 h, approx. inoculum: 80 - 120 CFU

Microorganism	Test strain	Specification	Appearance
<i>Pseudomonas aeruginosa</i>	WDCM 00025	Growth	Red with light blue halo



Escherichia coli

Enterobacter aerogenes

Pseudomonas aeruginosa