

Lactose-Broth

M&S item numbers: 5130 (25 x 50 ml, single concentrated, with Durham - tube)
5040 (4 x 100 ml in 250 ml – bottles, double concentrated, with Durham – tube)
5044 (4 x 250 ml, 6 – fold concentrated, without Durham – tube)

Application range: Lactose-Broth is used for the enrichment and the detection of *E. coli* and coliforms from water and other samples (see Mineral- und Tafelwasserverordnung (mineral- and table water regulation)).

Formulation: Pepton from meat 10.0 g/l
(typical, single conc.) Meat extract 3.0 g/l
Lactose 10.0 g/l
Sodiumchloride 5.0 g/l
Bromocresolpurple 0.04 g/l
pH 7.0 ± 0.2
Colour violet

Storage: Dark and dry at 4 – 12 °C

Description: *E. coli* and coliforms are able to ferment the carbon source Lactose. During this process acidic metabolites and CO₂ are formed. Due to the acids the pH – value of the medium drops down causing a color change of the pH – indicator bromocresolpurple from purple to yellow. The formation of CO₂ is detected with the Durham – tube, in which the gas is collected.

Typical growth: Incubation aerobically at 36 ± 1 °C for 24 – 48 hours

Microorganisms	Growth	Appearance
<i>Escherichia coli</i>	very good	color change from violett o yellow, formation of gas
<i>Enterobacter aerogenes</i>	very good	color change from violett o yellow, formation of gas
<i>Klebsiella pneumoniae</i>	very good	color change from violett o yellow, formation of gas
<i>Pseudomonas aeruginosa</i>	good	no color change, no formation of gas



1 – positive: *E. coli*
2 – positive: *Enterobacter aerogenes*
3 – negative: growth, but no color change
4 – negative: color change, but no formation of gas
5 – not inoculated