

Fluorocult® DEV Lactose Peptone Broth

Mode of Action

This medium is particularly suited for the enrichment and determination of the titre of coliform bacteria in the bacteriological analysis of water. *E. coli* shows a positive fluorescence under UV light (366 nm). A positive indole reaction is made for confirmation.

Typical Composition (g/litre)

Peptone from casein 17.0; peptone from soya 3.0; lactose 10.0; sodium chloride 5.0; bromocresol purple 0.02; tryptophan 1.0; 4-methylumbelliferyl- β -D-glucuronidase 0.1.

Preparation

Suspend 36.1 g/litre or 72.2 g/litre, dispense into test tubes fitted with DURHAM tubes, autoclave (15 min at 121 °C).

pH: 7.2 $\pm$ 0.2 at 25 °C.

The prepared broth is clear and purple.

Experimental Procedure and Evaluation

This depends on the various methods of water analysis.

Gas in the DURHAM tubes after incubation (24–48 hours at 35 °C aerobically) denotes the presence of *E. coli* and/or other coliform bacteria.

Check the tubes under UV light: light blue fluorescence indicates the presence of *E. coli* in the culture. If fluorescence is negative after 24 hours of incubation **do not** add KOVACS reagent to check indole reaction (this alcoholic reagent destroys the growth conditions in the medium). Continue incubation for another 24 hours. Then check for fluorescence and indole reaction.

To confirm detection, cover the culture with a 5 mm layer of KOVACS indole reagent. If after 1–2 minutes a red ring shows up, the presence of *E. coli* is confirmed.

Ordering Information

Product	Ordering No.	Pack size
Fluorocult® DEV Lactose Peptone Broth	1.04037.0500	500 g
Bactident® Indole (dropper bottle)	1.11350.0001	1 x 30 ml
KOVÁCS Indole Reagent	1.09293.0100	100 ml
UV Lamp (366 nm)	1.13203.0001	1 ea

Quality control

Test strains	Growth	Colour change to yellow	Gas	MUG	Indole
<i>Escherichia coli</i> ATCC 25922	good / very good	+	+	+	+
<i>Enterobacter aerogenes</i> ATCC 13048	good / very good	+	+ / -	-	-
<i>Klebsiella pneumoniae</i> ATCC 13883	good / very good	+	+		
<i>Salmonella typhimurium</i> ATCC 14028	good / very good	-	-		
<i>Aeromonas hydrophila</i> ATCC 7966	fair / very good	-	-		
<i>Enterococcus faecalis</i> ATCC 11700	fair / very good	$\pm$	-		