Fluorocult® VRB Agar

VRB-MUG Agar

Mode of Action

This medium is used for the detection and enumeration of coliform bacteria, in particular E. coli. Crystal violet and bile salts largely inhibit the growth of Gram-positive accompanying bacterial flora. Lactose-postitive colonies show a colour change to red of the pH indicator. E. coli colonies schow a fluorescence under UV light.

Typical Composition (g/litre)

Peptone from meat 7.0; yeast extract 3.0; sodum chloride 5.0; lactose 10.0; neutral red 0.03; bile salt mixture 1.5; crystal violet 0.002; agar-agar 13.0; 4-methylumbelliferyl-β-D-glucuronide 0.1.

Preparation

Suspend 39.6 g in 1 litre of demin. water and heat in a boilling waterbath or in free flowing steam with frequent stirring until completely dissolved. Afterwards do not boil for more than 2 minutes.

■ **Do not autoclave! Do not overheat!**

pH: 7.4 ± 0.2 at 25 °C.

The plates are clear and dark red.

Experimental Procedure and Evaluation

Inoculate the medium in the usual way and incubate for 18-24hours at 35 °C aerobically.

Lactose-negative Enterobacteriaceae are colourless. Lactose-positive colonies are red and often surrounded by a turbid zone due to the precipitation of bile acids.

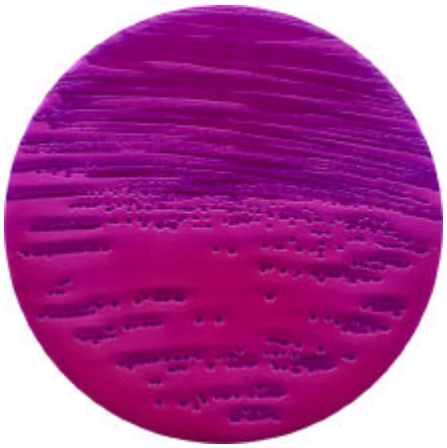
Fluorescence is noted with a UV lamp: light blue fluorescing colonies denote E. coli.

Ordering Information

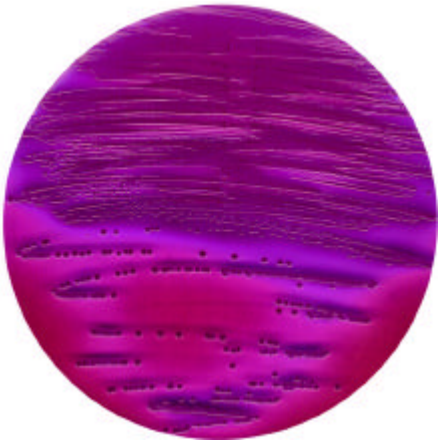
Product	Merck Cat. No.	Pack size
Fluorocult® VRB Agar	1.04030.0500	500 g
UV Lamp (366 nm)	1.13203.0001	1 ea

Quality control

Test strains	Growth	Colony Colour	Precipitate	MUG
Escherichia coli ATCC 11775	good / very good	red	+	+
Enterobacter aerogenes ATCC 13048	good / very good	red	+ / -	-
Salmonella gallinarum NCTC 9240	good / very good	colourless		-
Shigella flexneri ATCC 29903	good / very good	colourless		-
Yersinia enterocolitica ATCC 9610	fair / very good	colourless		-
Staphylococcus aureus ATCC 6538	none			
Micrococcus luteus ATCC 9341	none			
Lactococcus lactis spp. lactis ATCC 19435	none			
Bacillus cereus ATCC 11778	none			
Lactobacillus plantarum ATCC 14917	none / poor			



Enterobacter aerogenes ATCC 13048



Escherichia coli ATCC 11775