

# Product Name : Violet Red Bile Agar MUG

Selective medium for isolation and counting coliforms and *E. coli* in foodstuffs.

## TYPICAL FORMULA (G/L)

Peptone ..... 7.0  
Lactose .....10.0  
Sodium Chloride ..... 5.0  
Yeast Extract ..... 3.0  
Bile salt n°3 ..... 1.5  
Crystal Violet .....0.002  
Neutral Red ..... 0.03  
MUG ..... 0.1  
Agar .....15.0  
Final pH = 7.4 ± 0.2 at 25°C.

## DIRECTIONS

Suspend 41.64 G of powder in 1 L of distilled or deionized water. Heat to boiling for about 2 minutes. Avoid overheating. Cool to 45-50°C. Dispense into final containers. Sterilization is not necessary.

## DESCRIPTION

Violet Red Bile Agar MUG is used for the isolation and enumeration of *E. coli* in foods, milk and dairy products. Biliary salts and the crystal violet inhibit the growth of Gram-positive bacteria. Lactose fermentation by the enterobacteria causes an acidification of the medium with consequent color change of the indicator towards red-purple and the biliary salts precipitation.

## TECHNIQUE

Transfer 1 mL of the test sample into a Petri dish. Add 10 mL of Violet Red Bile Agar MUG (at 45-50°C) and mix. Allow to solidify and incubate at 36 ± 1°C for 18-24 hours; use 32°C for dairy products. Observe periodically for the development of fluorescence under a Wood's lamp. Refer to various compendia for the test being performed and to technical sheet for the details of the procedure for the detection and confirmation of coliforms.

## QUALITY CONTROL

### Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: reddish-beige.

### Prepared medium

Appearance: slightly opalescent.

Color: reddish-purple.

Incubation conditions: 32 ± 1°C / 24 ± 2 hours.

Microorganism	ATCC	Growth	Characteristics
<i>Enterococcus aerogenes</i>	13048	good	pink colonies
<i>Escherichia coli</i>	25922	good	red colonies/ fluorescence
<i>Enterococcus faecalis</i>	19433	inhibited	

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### PERFORMANCE AND LIMITATIONS

Violet Red Bile Agar MUG may not be completely inhibitory to Gram-positive organisms. Perform Gram stain and biochemical tests to eventually identify isolate colony. Boiling the medium for longer than 2 minutes can decrease the ability to support growth.

### STORAGE

The powder is very hygroscopic: store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-6°C.

### REFERENCES

1. Christen, Davidson, McAllister and Roth (1993). In Marshall (ed.) Standard methods for the microbiological examination of dairy products, 16th ed American Public Health Association , Washington, DC.

### PACKAGING

Cat. No : MB-V1187 Violet Red Bile Agar MUG	500 G
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