

# PRODUCT INFORMATION



## Violet Red Bile Agar with MUG

Cat. No. V22-101

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### DESCRIPTION

Violet Red Bile Agar with MUG is often abbreviated as VRBA w/ MUG. This medium is used for the fluorogenic detection of *Escherichia coli* in food, milk, water, and other sanitary materials. Like Violet Red Bile Agar, it is a selective medium which detects the growth of lactose fermenting coliforms. Coliform colonies lower the pH of the medium subsequently causing their colonies to look red (neutral red dye). Crystal Violet and bile salts inhibit the growth of Gram-positive microorganisms while the addition of 4-methylumbelliferyl- $\beta$ -D-glucuronide (MUG) allows for the rapid detection of *E. coli*. MUG is used as a substrate to detect glucuronidase activity which results in fluorescence under UV light.

#### Formula\* per Liter:

Pancreatic Digest of Gelatin .....	7.0g
Bile Salt #3.....	1.5g
Sodium Chloride .....	5.0g
MUG .....	0.1g
Neutral Red.....	0.03g
Crystal Violet.....	0.002g
Yeast Extract .....	3.0g
Lactose .....	10.0g
Agar .....	15.0g

**Final pH:** 7.4  $\pm$  0.2 at 25°C

\* Grams per liter may be adjusted or formula supplemented to obtain desired performance.

### PREPARATION

Mix 41.6 of the medium in one liter of purified water until evenly dispersed. Heat with repeated stirring and boil for two minutes. DO NOT AUTOCLAVE. Cool to 45 to 46°C and dispense into plates.

### QUALITY CONTROL SPECIFICATIONS

1. The powder is homogeneous, free flowing, and light red-beige.
2. Visually the prepared medium is clear to slightly hazy and red-purple.
3. Expected cultural response after 18-24 hours at 35°C.

Organism	Results	Appearance	Fluorescence
<i>Enterobacter aerogenes</i> ATCC® 13048	Growth	Pink Colonies	-
<i>Escherichia coli</i> ATCC® 25922	Growth	Pink/purple colonies	+
<i>Staphylococcus aureus</i> ATCC® 25923	None	Inhibition	-

### STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.