LAB031
Violet Red Bile Agar
V.R.B.A.

Description
A medium for the enumeration of coliform organisms in food and dairy products. The selectivity of the medium is due to the presence of bile salts and crystal violet. Lactose fermenters produce red/purple colonies often surrounded by a halo of the same colour. Non lactose fermenters produce pale colonies. Selectivity can be increased by incubation at 42-44°C.

Typical Formulation

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>g/litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeast extract</td>
<td>3.0</td>
</tr>
<tr>
<td>Balanced peptone No.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.0</td>
</tr>
<tr>
<td>Bile salts No.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Lactose</td>
<td>10.0</td>
</tr>
<tr>
<td>Neutral red</td>
<td>0.03</td>
</tr>
<tr>
<td>Crystal violet</td>
<td>0.002</td>
</tr>
<tr>
<td>Agar No.2</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Appearance
Powder: fine, free-flowing, homogeneous, buff
Finished medium: light, purple-violet clear gel

pH: 7.4 ± 0.2

Hazard classification
NR – Not regulated

Method for reconstitution
Disperse 38.5g of powder in 1 litre of distilled water. Dissolve by bringing to the boil with frequent swirling of the flask to prevent overheating. Do not autoclave. Cool to 45°C and distribute into bottles or tubes. If held molten in a water bath, use within 3 hours.

Inoculation
Pour plate (with or without overlay) or surface spread.

Incubation
37°C for 18-24 hours for ‘coliforms’; 4°C for 10 days for psychrotrophs; 32°C for 24-48 hours for mesotrophs; 42°C for 18 hours for thermotrophs.

Interpretation
Count all red/purple colonies > 0.5mm in diameter. Calculate the number of coliforms in original sample.

Storage
Dehydrated culture media: 10-25°C away from direct sunlight.
Prepared media: Plates – up to 7 days at 2-8°C in the dark
Capped containers – up to 1 month at 15-20°C in the dark
Minimum Q.C. organisms
Escherichia coli WDCM 00013
Enterococcus faecalis WDCM 0087 (inhibition)

References


