**INTENDED USE**
Remel KF Strep Agar is a solid medium recommended for use in qualitative procedures for selective isolation and enumeration of fecal streptococci.

**SUMMARY AND EXPLANATION**
KF Strep Agar was formulated by Kenner et al. in 1961 for detection of fecal streptococci in polluted surface waters. Because enterococci are host specific and survive only a short interval outside their natural habitats, their detection in surface waters may help identify the source of pollution. Enterococcus is also used as an index of sanitary quality in the dairy industry because they survive in microenvironments unfavorable to coliforms. KF Strep Agar is recommended for detection and enumeration of enterococci in water, foods, and dairy products in Compendium of Methods for the Microbiological Examination of Foods, Standard Methods for the Examination of Water and Wastewater, and Standard Methods for the Examination of Dairy Products.

**PRINCIPLE**
Casein and meat peptones provide amino acids, peptides, and nitrogenous compounds necessary for bacterial growth. Yeast extract is a source of B-complex vitamins and enhances growth. Sodium chloride maintains osmotic equilibrium, and maltose and lactose are the fermentable carbohydrates. Sodium azide is a selective agent and brom cresol purple is an indicator dye. Triphenyltetrazolium chloride (TTC) is reduced by enterococci to its formazan derivative, imparting a deep red color to the colony. Agar is a solidifying agent.

**REAGENTS (CLASSICAL FORMULA)**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maltose</td>
<td>20.0 g</td>
</tr>
<tr>
<td>Sodium Glycerophosphate</td>
<td>3.0 g</td>
</tr>
<tr>
<td>Yeast Extract</td>
<td>10.0 g</td>
</tr>
<tr>
<td>Casein Peptone</td>
<td>5.0 g</td>
</tr>
<tr>
<td>Meat Peptone</td>
<td>5.0 g</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>5.0 g</td>
</tr>
<tr>
<td>Lactose</td>
<td>1.0 g</td>
</tr>
<tr>
<td>Sodium Azide</td>
<td>0.4 g</td>
</tr>
<tr>
<td>Triphenyltetrazolium Chloride (TTC)</td>
<td>10.0 ml</td>
</tr>
<tr>
<td>Agar</td>
<td>20.0 g</td>
</tr>
<tr>
<td>Demineralized Water</td>
<td>1000.0 ml</td>
</tr>
</tbody>
</table>

pH 7.2 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

**PRECAUTIONS**
This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

**PREPARATION OF DEHYDRATED CULTURE MEDIUM**
1. Suspend 76.4 g of medium in 1000 ml of demineralized water.
2. Heat to boiling with agitation to completely dissolve. Do not autoclave.
3. Cool to approximately 50°C and aseptically add 10 ml of sterile 1% TTC (triphenyltetrazolium chloride).
4. Mix well and dispense into appropriate containers.

**PROCEDURE**
1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, and testing.
2. Incubate aerobically for the proper time duration at the appropriate temperature following established laboratory procedures.
3. Observe for typical colony morphology. Consult appropriate references for further instructions.

**QUALITY CONTROL**
Each lot number of KF Strep Agar has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

**CONTROL**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Enterococcus faecalis</em></td>
<td>ATCC® 29212</td>
</tr>
<tr>
<td><em>Enterobacter aerogenes</em></td>
<td>ATCC® 13048</td>
</tr>
<tr>
<td><em>Escherichia coli</em></td>
<td>ATCC® 25922</td>
</tr>
</tbody>
</table>

**INCUBATION**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobic</td>
<td>up to 48 h  @ 33-37°C</td>
</tr>
</tbody>
</table>

**RESULTS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td></td>
</tr>
<tr>
<td>Inhibition</td>
<td></td>
</tr>
</tbody>
</table>

**LIMITATIONS**

1. KF Strep Agar is not specific for presumptive identification of enterococci. Other organisms (e.g., *Lactobacillus*, *Aerococcus*, etc.) may grow and produce light-pink colonies. Further testing is required for definitive identification of enterococci.

2. Optimum detection of enterococci in dairy products, the use of a more selective medium (i.e., m-Enterococcus Agar) in addition to KF Strep Agar is recommended.

**BIBLIOGRAPHY**


Refer to the front of Remel Technical Manual of Microbiological Media for General Information regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

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