INTENDED USE
Remel SXT Blood Agar is a solid medium recommended for use in qualitative procedures for the isolation of beta-hemolytic group A streptococci from throat cultures and upper respiratory specimens.

SUMMARY AND EXPLANATION
Clinical assessment alone is unreliable in distinguishing streptococcal and nonstreptococcal pharyngitis. Serious medical complications may follow pharyngitis caused by group A beta-hemolytic streptococci, making bacterial examination of the throat an indispensable diagnostic tool. Pacifico et al. demonstrated that isolation of beta-hemolytic streptococci is improved with the use of a selective medium which inhibits oropharyngeal commensal microbial flora. In 1977, Gunn et al. introduced a selective medium containing sulfamethoxazole plus trimethoprim (SXT) in a tryptic soy agar base supplemented with 5% sheep blood. This medium enhanced recovery of Lancefield groups A and B streptococci from throat cultures while inhibiting the growth of commensal microbial flora. In 1979, Kurzynski et al. reported that group A streptococci were more frequently isolated on SXT Sheep Blood Agar than on nonselective sheep blood agar when both were incubated in carbon dioxide. Kurzynski and coworkers reported improved recovery of group A streptococci utilizing a bacitracin disk on SXT Agar.

PRINCIPLE
Casein and soy peptones provide a nutritious source of organic nitrogen, amino acids, and peptides. Sodium chloride maintains osmotic equilibrium. Sheep blood supplies nutrients necessary to support the growth of streptococci and allows detection of hemolytic reactions. SXT suppresses most commensal microbial flora found in the oropharynx, including viridans streptococci. Streptococci groups C, F, G, most Enterobacteriaceae, Neisseria spp., and some Pseudomonas spp. are inhibited on this medium.

REAGENTS (CLASSICAL FORMULA)*

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casein Peptone</td>
<td>15.0 g</td>
</tr>
<tr>
<td>Soy Peptone</td>
<td>5.0 g</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>5.0 g</td>
</tr>
<tr>
<td>Sulfamethoxazole</td>
<td>23.75 mg</td>
</tr>
<tr>
<td>Trimethoprim</td>
<td>1.25 mg</td>
</tr>
<tr>
<td>Agar</td>
<td>15.0 g</td>
</tr>
<tr>
<td>Demineralized Water</td>
<td>1000.0 ml</td>
</tr>
</tbody>
</table>

pH 7.3 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE
1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory. Selective and nonselective media should be inoculated to ensure recovery of microorganisms that may be inhibited on selective agar.
2. Inoculate SXT Blood Agar by rolling the swab over a small area of the agar surface. Use a sterile inoculating loop to streak the plate for isolation. Stab the agar several times with the loop in the area of heaviest inoculation. Anaerobiosis below the surface of the agar permits maximum expression of beta hemolysis by subsurface colonies.
3. Incubate plates in 5-10% CO₂ at 33-37°C for 24-48 hours.
4. Examine plate for typical colony morphology and beta hemolysis. On SXT Blood Agar, colonies of beta-hemolytic streptococci are translucent or opaque, white to gray, and surrounded by a zone of beta hemolysis.

QUALITY CONTROL
All lot numbers of SXT Blood Agar have been tested using the following quality control organisms and have been 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, patient results should not be reported.

CONTROL
Streptococcus pyogenes ATCC® 19615
Staphylococcus epidermidis ATCC® 12228
Streptococcus sanguinis ATCC® 10556

INCUBATION
CO₂, 18-24 h @ 33-37°C

RESULTS
Growth, beta hemolysis
Inhibition (partial to complete)
Inhibition (partial to complete)

LIMITATIONS
1. Organisms other than beta-hemolytic streptococci may grow on this medium, including alpha-hemolytic and nonhemolytic streptococci. Additional biochemical and/or serological tests may be required for definitive identification. Consult appropriate references for further instructions.

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.

ATCC® is a registered trademark of American Type Culture Collection.

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