TRYPTIC SOY AGAR W/ LECITHIN & Tween 80 (7163)

**Intended Use**
Tryptic Soy Agar W/ Lecithin & Tween 80 is used for the isolation of microorganisms from surfaces sanitized with quaternary ammonium compounds in a laboratory setting. Tryptic Soy Agar W/ Lecithin & Tween 80 is not intended for use in the diagnosis of disease or other conditions in humans.

**Product Summary and Explanation**
In 1955, Leavitt et al. discovered Tryptic Soy Agar supported excellent growth of aerobic and anaerobic microorganisms. Tryptic Soy Agar is a nutritious base and a variety of supplements are added to enhance the medium, including Lecithin and Tween 80. The Lecithin and Tween 80 inactivate some preservatives that may inhibit bacterial growth, reducing “preservative carryover”. Tryptic Soy Agar W/ Lecithin & Tween 80 is recommended for determining the sanitation efficiency of containers, equipment, and work area (environmental monitoring).

**Principles of the Procedure**
Enzymatic Digest of Casein and Enzymatic Digest of Soybean Meal provide nitrogen, vitamins, and carbon in Tryptic Soy Agar W/Lecithin & Tween 80. Sodium Chloride maintains osmotic balance in the medium. Lecithin and Tween 80 are added to neutralize surface disinfectants. Lecithin is added to neutralize quaternary ammonium compounds. Tween 80 is incorporated to neutralize phenols, hexachlorophene, formalin and, with lecithin, ethanol. Agar is the solidifying agent.

**Formula / Liter**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enzymatic Digest of Casein</td>
<td>15 g</td>
</tr>
<tr>
<td>Enzymatic Digest of Soybean Meal</td>
<td>5 g</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>5 g</td>
</tr>
<tr>
<td>Lecithin</td>
<td>0.7 g</td>
</tr>
<tr>
<td>Tween 80</td>
<td>5 g</td>
</tr>
<tr>
<td>Agar</td>
<td>20.5 g</td>
</tr>
</tbody>
</table>

Final pH: 7.3 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

**Precautions**
1. For Laboratory Use Only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

**Directions**
1. Suspend 51.2 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.

**Quality Control Specifications**
**Dehydrated Appearance:** Powder is homogeneous, lumpy, and beige.

**Prepared Appearance:** Prepared medium is trace to moderately hazy and yellow-beige.
**Expected Cultural Response:** Cultural response on Tryptic Soy Agar W/ Lecithin & Tween 80 incubated aerobically at 35 ± 2°C and examined for growth after 18 - 48 hours.

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Approx. Inoculum (CFU)</th>
<th>Expected Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Bacillus subtilis</em> ATCC® 6633</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
<tr>
<td><em>Candida albicans</em> ATCC® 10231</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
<tr>
<td><em>Clostridium sporogenes</em> ATCC® 11437</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
<tr>
<td><em>Enterococcus faecalis</em> ATCC® 19433</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
<tr>
<td><em>Escherichia coli</em> ATCC® 25922</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
<tr>
<td><em>Salmonella typhimurium</em> ATCC® 14028</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em> ATCC® 25923</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
<tr>
<td><em>Staphylococcus epidermidis</em> ATCC® 12228</td>
<td>10 - 300</td>
<td>Good growth</td>
</tr>
</tbody>
</table>

The organisms listed are the minimum that should be used for quality control testing.

**Test Procedure**
Refer to appropriate references for specific procedures using Tryptic Soy Agar W/ Lecithin & Tween 80 or environmental monitoring.

**Results**
Refer to appropriate references for test results.

**Storage**
Store sealed bottle containing the dehydrated medium at 2 - 8°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

**Expiration**
Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

**Limitations of the Procedure**
Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

**Packaging**
Tryptic Soy Agar W/ Lecithin & Tween 80  
Code No.  
7163A  500 g  
7163B  2 kg  
7163C  10 kg

**References**

**Technical Information**
Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (517)372-9200 or fax us at (517)372-2006.