CAT Nº:4220 For the isolation and cultivation of trichomonas species

**FORMULA IN g/l**

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount (g/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver peptone</td>
<td>2.100</td>
</tr>
<tr>
<td>Meat extract</td>
<td>2.500</td>
</tr>
<tr>
<td>Sodium hydrogen carbonate</td>
<td>0.083</td>
</tr>
<tr>
<td>Proteose peptone n.3</td>
<td>16.60</td>
</tr>
<tr>
<td>Calcium chloride</td>
<td>0.083</td>
</tr>
<tr>
<td>Streptomycin sulfate</td>
<td>1.250</td>
</tr>
<tr>
<td>Maltose</td>
<td>4.300</td>
</tr>
<tr>
<td>Ascorbic acid</td>
<td>0.860</td>
</tr>
<tr>
<td>L-Asparagine</td>
<td>1.000</td>
</tr>
<tr>
<td>Horse serum</td>
<td>140 ml</td>
</tr>
<tr>
<td>Dextrose</td>
<td>4.300</td>
</tr>
<tr>
<td>Penicillin G sodium</td>
<td>1000000 UI</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
</tbody>
</table>

**Final pH 6.3 ± 0.2 at 25°C**

20 tubes/ tube 17,7 x 100 mm con 7 ± 0.5 ml

**USES**

Roiron Medium is used for the enrichment of suspect samples of *Trichomonas*, as a previous step of the isolation, cultivation and identification of *Trichomonas vaginalis* from urinary sediments, vaginal exudates or urethral samples.

*Trichomonas* is a genus of anaerobic protists that are parasites of vertebrates. Species of *Trichomonas* include *Trichomonas vaginalis*, an organism generally living inside the human urinogenital tract. *Trichomonas vaginalis* is an anaerobic, flagellated protozoan, a form of microorganism. The parasitic microorganism is the causative agent of trichomoniaisis, and is the most common pathogenic protozoan infection of humans in industrialized countries.

The medium supports a good growth of fungi and yeasts; and therefore can be used for the simultaneous detection of both *T. vaginalis* and *Candida*.

Numerous studies have shown the cultivation procedure to be superior to the microscopic method for the isolation of *Trichomonas* species. The greater accuracy of the culture method was demonstrated by Kupferberg, and it was also observed that the efficiency of therapy for these infections could be ascertained by using negative cultures.

Peptones and extracts provide nitrogen, vitamins, minerals and amino acids essential for growth. Maltose and dextrose are the energy source and horse serum provides essential growth factors. The chloride salts supply essential electrolytes for transport and osmotic balance. Ascorbic acid is a growth-factor. Antibiotics, streptomycin sulfate and penicillin G sodium, are added to suppress the growth of the accompanying bacterial flora.

The specimen should be inoculated as soon as possible. If a liquid specimen is received, inoculate several drops into the medium, at the bottom of the tube. If the specimen is contained in a swab, swirl the swab in the medium and cut off the protruding top portion of the swab. Cap loosely and aerobically incubate the tubes at 37°C for 2-5 days.

Turbidity is a good indicator of the *Trichomonas* growth but this should be verified daily, by microscopic observation in fresh, taking samples from the bottom of the tube.

**MICROBIOLOGICAL TEST**

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 37 °C, observed after 24-48 hours.
**Microorganisms** | **Growth** 
---|---
Trichomonas tenax ATCC 30207 | Good
Trichomonas vaginalis ATCC 30001 | Good
Candida albicans ATCC 10231 | Good
Escherichia coli ATCC 8739 | Inhibited

**BIBLIOGRAPHY**


**STORAGE**

The prepared medium should be stored at 4-12°C.

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ULTIMA REVISION 01/04/2017