PSEUDOMONAS ISOLATION AGAR

INTENDED USE
Remel Pseudomonas Isolation Agar is a solid medium recommended for use in qualitative procedures for the isolation and identification of Pseudomonas species from clinical and nonclinical specimens.

SUMMARY AND EXPLANATION
Pseudomonas Isolation Agar is a modification of the Medium A formulation of King, Ward, and Raney. Irgasan® is added as a potent broad-spectrum antimicrobial. The formulation of this medium was developed to enhance the production of pyocyanin which aids in the presumptive identification of Pseudomonas aeruginosa. Pseudomonas Isolation Agar is especially useful in isolating Pseudomonas from clinical specimens which are contaminated with commensal microbial flora.

PRINCIPLE
P. aeruginosa is the only species of bacteria known to produce pyocyanin, a blue-green pigment which diffuses into the medium surrounding the growth. Gelatin and meat peptones provide the nutrients necessary for bacterial growth. The medium has a low phosphorous concentration which facilitates pyocyanin production. Pyocyanin production is enhanced by glycerol, magnesium chloride, and potassium sulfate incorporated in the medium. Glycerol is also an energy source. Irgasan® is the selective agent which inhibits many gram-positive and gram-negative bacteria other than Pseudomonas spp.

REAGENTS (CLASSICAL FORMULA)*

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gelatin Peptone</td>
<td>10.0 g</td>
</tr>
<tr>
<td>Meat Peptone</td>
<td>10.0 g</td>
</tr>
<tr>
<td>Potassium Sulfate</td>
<td>10.0 g</td>
</tr>
<tr>
<td>Magnesium Chloride</td>
<td>1.4 g</td>
</tr>
<tr>
<td>Irgasan®</td>
<td>25.0 mg</td>
</tr>
<tr>
<td>Glycerol</td>
<td>20.0 ml</td>
</tr>
<tr>
<td>Agar</td>
<td>13.6 g</td>
</tr>
<tr>
<td>Demineralized Water</td>
<td>1000.0 ml</td>
</tr>
</tbody>
</table>

pH 7.0 ± 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.
2. If the material is being cultured directly from a swab, roll the swab over a small area of the agar surface and streak for isolation.
3. Incubate the plate in ambient air for up to 48 hours at 33-37°C. If no growth occurs, reincubate at 25°C for an additional 18-24 hours.
4. Examine for growth and blue-green pigment production.

QUALITY CONTROL
All lot numbers of Pseudomonas Isolation 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

- Pseudomonas aeruginosa ATCC® 27853
- Pseudomonas fluorescens ATCC® 13525
- Escherichia coli ATCC® 25922
- Staphylococcus aureus ATCC® 25923

INCUBATION

- Ambient, up to 48 h @ 33-37°C
- Ambient, 18-24 h @ 33-37°C

RESULTS

- Growth, blue-green pigment
- Growth, no pigment
- Inhibition (partial to complete)

LIMITATIONS
1. Occasional strains of Pseudomonas aeruginosa fail to produce pyocyanin.

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.

Irgasan® is a registered trademark of Ciba-Geigy for 2,4,4'-Trichloro-2-Hydroxydiphenol-ether.

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

IFU 1712, Revised September 30, 2010 Printed in U.S.A.