HEART INFUSION AGAR

INTENDED USE
Remel Heart Infusion Agar is a solid medium recommended for use in qualitative procedures for isolation of a wide variety of microorganisms.

SUMMARY AND EXPLANATION
Meat infusions were included in the first media used for the cultivation of bacteria.[1] Huntoon prepared a medium using fresh beef heart and peptone which became known as Heart Infusion Agar. He demonstrated it could be used to support the growth of nutritionally fastidious microorganisms without the addition of enrichment, such as animal blood. Heart Infusion Agar can also be used for mass cultivation of bacteria required in vaccine preparation and animal blood can be added to enable determination of hemolytic reactions by organisms.[2,3]

PRINCIPLE
Beef heart infusion and casein peptone supply nitrogenous compounds and amino acids necessary for the growth of nutritionally fastidious bacteria. Sodium chloride provides essential electrolytes and maintains osmotic equilibrium. Yeast extract is a source of energy and supplies B vitamins to enhance bacterial growth. Agar is a solidifying agent.

REAGENTS (CLASSICAL FORMULA)*

Casein Peptone	13.0 g	Beef Heart Infusion	2.0 g
Sodium Chloride	5.0 g	Agar	15.0 g
Yeast Extract	5.0 g	Demineralized Water	1000.0 ml

pH 7.4 ± 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 aerobically or in 5-10% CO_2 at 33-37°C for 18-24 hours.
4. Examine for typical colony morphology.

QUALITY CONTROL
All lot numbers of Heart Infusion 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	INCUBATION	RESULTS
Escherichia coli ATCC® 25922	Aerobic, 18-24 h @ 33-37°C	Good growth
Pseudomonas aeruginosa ATCC® 27853	Aerobic, 18-24 h @ 33-37°C	Good growth
Staphylococcus aureus ATCC® 25923	Aerobic, 18-24 h @ 33-37°C	Good growth

BIBLIOGRAPHY

1. Huntoon, F.M. 1918. J. Infect. Dis. 23:169-172.
2. Murray, P.R., E.J. Baron, J.H. Jorgensen, M.L. Landry, and M.A. Pfaller. 2007. Manual of Clinical Microbiology. 9th ed. ASM Press, Washington, D.C.
3. MacFaddin, J.F. 1985. Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Williams & Wilkins, Baltimore, MD.

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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