

TM 078 – CYSTINE HEART AGAR BASE

INTENDED USE

For isolation, detection and cultivation of saprophytic fungi, yeasts and moulds.

PRODUCT SUMMARY AND EXPLANATION

Francisella tularensis is the cause of tularaemia, a plague-like disease of rodents and other small organisms. It was first described in humans in 1907. The organisms are strict aerobes; fresh isolates cannot be cultured on ordinary medium but require a complex medium containing blood, or tissue extracts and cystine. Several media formulations were employed to isolate this microorganism. Blood Dextrose Cystine Agar, described by Francis was found to be satisfactory for cultivating *F.tularensis*. Addition of 0.05% cystine and 1% dextrose to Heart Infusion Agar can also be employed for cultivation of *F.tularensis*. Subsequently haemoglobin was added to Cystine Heart Agar Base to develop a satisfactory cultivation medium for *F.tularensis*. This medium is also known as Cystine Glucose Blood Agar and is the most suitable medium for isolating *F.tularensis*. Hemoglobin provides additional nutrients and growth factors. This medium also supports growth of gram-negative cocci and other pathogenic microorganisms without additional enrichment. Cystine Heart Agar Base can be supplemented with Rabbit blood and antimicrobial agents.

This medium is a nutritionally rich medium, which may also be used for cultivating many other organisms generally difficult to grow. Overgrowth by contaminating organisms can be reduced by incorporating 100-500 units penicillin per ml into the medium. *F.tularensis* is a Biosafety Level 2 pathogen that can be transmitted by aerosols or by penetration of unbroken skin. Wearing of gowns, gloves and masks is recommended for people handling suspected infectious material.

COMPOSITION

Ingredients	Gms / Ltr
Beef heart infusion (solids)	10.000
Proteose peptone	10.000
Dextrose	10.000
Sodium chloride	5.000
L-Cystine	1.000
Agar	15.000

PRINCIPLE













Beef heart infusion (solids) and proteose peptone are sources of carbon, nitrogen, vitamins and minerals. Dextrose is an energy source. L-Cystine is the source of amino acid. Sodium chloride provides the essential ions.

INSTRUCTION FOR USE

- Dissolve 51 grams in 1000 ml purified/ distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- When to be enriched with haemoglobin (2%), suspend 10.2 grams of medium in 100 ml distilled water.
- Sterilize as above. Cool medium to 50°C and aseptically add 100 ml of 2% sterile haemoglobin solution.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Buckstrasse 10, 49163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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