Blood Culture Medium

REF.	Pack size
1452 001	6 x 8 ml
1452 002	8 x 8 ml
1452 003	5 x 28 ml
1452 004	5 x 30 ml
1452 005	4 x 70 ml
1452 006	4 x 80 ml
1452 007	8 ml*
1452 008	10 ml*
1452 009	28 ml*
1452 010	30 ml*
1452 011	70 ml*
1452 012	80 ml*

Intended Use

Blood culture medium detects clinically important pathogenic aerobic and anaerobic microorgansims in a blood sample in case of lungs, kidney, gall bladder or heart valves infections.

Background

The presence of living microorganisms in a patient's bloodstream has diagnostic and prognostic importance,The occurence of a sudden relative change in pulse rate and temperature with or without chills,hyperventilation are indications of suspected septicemia. Septicemia in hospital patients has increased over the past decade from 10 to around 15 cases/ 1000 admissions, with a corresponding increase in morbidity and mortality. The number of clinically important isolates from blood cultures has doubled in the past four years. Hence, for cases of suspected septicemia , the culture of blood for bacteria and fungi is mandatory.Blood culture can be used for culturing blood to detect aerobic and facultative anaerobic bacteria in the blood stream.

Principle

Blood samples are collected from patients, using strict aseptic technique and sterile equipment. The samples are inoculated into the blood culture bottles and mixed with the medium.The formulation of the medium encourages the growth of aerobic and facultative anaerobic. The medium is also designed to create pressure in the sealed bottle when organisms are growing.

Components	gm/Liter
Yeast extract	3.0
Tryptone	10.0
Proteose peptone	5.0
Soya peptone	1.5
Glucose	2.5
Sodium chloride	5.0
Beef heart, infusion	2.0
Calf brain, infusion	2.0
disodium phosphate	2.5
Growth activator #	

Final pH (at 25°C) 7.3 ± 0.2

Preparation, Storage and Stability

Store the blood culture media at 10-30°C away from light.
The media is stable till the expiration date stated on the vial.

Materials required but not provided

1. Sterile syringe or other means of obtaining blood.
2. Alcohol solutions, or other suitable skin disinfection material.
3. Culture media and other equipment for subcultures.
4. Incubator equipment to maintain 36 ± 1°C.
5. Orbital shaker (for optimal results)

SYMBOLS IN PRODUCT LABELLING

EC REP Authorised Representative	Use by/Expiration Date
IVD For in-vitro diagnostic use	CAUTION. Consult instructions for use
LOT Batch Code/Lot number	Manufactured by
REF Catalogue Number	(Xi) - Irritant
Consult instructions for use	
Temperature Limitation	

Test Procedure

1. Examine the bottle of broth before taking the blood sample and discard it if any evidence of contamination can be seen.
2. Bring the blood culture bottle to room temperature before testing.
3. Withdraw blood from the patient using sterile needle and syringe.
4. Aseptically inject the blood sample into the culture media.
5. Thoroughly mix the blood with the broth in the bottle.
6. Recommended blood-to-broth-ratio is 1:10
7. After 24 hours of incubation observe the botlles for any evidence of microbial growth.

Remarks

1. Blood drawn for culture media must not be allowed to clot ; as trapped bacteria may go undetected.
3. Use sterile venting unit for aerobic blood culture bottle.
4. The bottles should be held for 7 days before reporting a negative blood culture.
5. If growth is detected, a gram stained smear should be prepared and subculture method be carried for further identification.

Interpretation of the results

The bottle is incubated and observed for lysis, turbidity,color change , gas formation or the appearence of colonies on the interface of the blood layer.

Limitations

1. Blood cultures should be done before initiation of antimicrobial therapy.
2. Premature discarding of apparently negative blood cultures or infrequent observations may result in failure to detect the presence of pathogenic micro-organisms or loss of viability.
3. Culture media sometimes contain small numbers of non-viable micro organisms which may be visible in smears.

Bibliography

1. Finegold S. M. and Martin W. J. (1982) Diagnostic Microbiology 6th Edn. Published C. V Mosby Co. St Louis. p.42.
2. Hinder S. M., Sawhney D. and Swaine D. 2nd European Congress of Clinical Microbiology 1985, Abstract 12/2.
3. King A., Bone G. and Phillips I. 2nd European Congress of Clinical Microbiology 1985, Abstract 12/4

* Not CE Registered

The Microbial growth is enhanced by adding special growth activator to the formula. This cause synergertic effect to enable growth of fastidious organigisms in very low count

Egyptian Co for Biotechnology - Spectrum Diagnostics (S.A.E)
Obour city industrial area. block 20008 piece 19 A. Cairo. Egypt.
Tel: +202 4489 2248 - Fax: +202 4489 2247
www.spectrum-diagnostics.com
E-mail:info@spectrum-diagnostics.com

EC REP **MDSS GmbH**
Schiffgraben 41
30175 Hannover, Germany

CE

EGAC Accredited