SPECTRUM

The Creative Approach to Bioscience

Blood Culture Medium

REF.	Pack size
1452 001	8 ml
1452 002	10 ml
1452 003	28 ml
1452 004	30 ml
1452 005	70 ml
1452 006	80 ml

SYMBOLS IN PRODUCT LABELLING

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

Intended Use

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

Background

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 correspondng 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, facultative anaerobic and 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, anaerobic and micro-aerophilic organisms. The medium is also designed to create pressure in the sealed bottle when organisms are growing.

Components	gm/Liter
Yeast extract	5.0
Tryptone	15.0
Glucose	5.5
Sodium chloride	5.0

Final pH (at 25°C) 7.0 ± 0.2

Preparation, Storage and Stability

Store the blood culture media at 10-30°C away from light.
The media is stable till the expired 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)

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. Vent one bottle for aerobic incubation and leave the other unvented for anaerobic incubation at 35 ± 2°C for 7 days.
7. Observe the botlles for any evidence of microbial growth.

Remarks

1. Blood samples should be stored at 2-8°C if not tested immediately. Avoid using hemolysed samples.
2. 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

Spectrum For Diagnostic Industries - Free Zone
Ismailia Free Zone Industrial Area, Block 5 .
Cairo- Port said Avenue.
Ismailia,Egypt
Tel: +2 064 3488 013 - +2 064 3488 014 Fax: +2 064 3488 015
www.sdi-fz.com

EC REP MDSS GmbH
Schiffgraben 41
30175 Hannover, Germany

CE

ISO 13485:2016