

TMK 308S – GLUCOSE BROTH W/ 0.05% SPS (BLOOD CULTURE BOTTLE)

INTENDED USE

For detection of microorganisms in blood.

PRODUCT SUMMARY AND EXPLANATION

Blood is one of the most important specimens received by the laboratory and blood culture is one of the most important and critical procedures performed in the microbiology laboratory. The isolation and identification of an organism has great diagnostic significance with blood being normally sterile. Blood cultures are of great importance in diagnosing such conditions as endocarditis, typhoid fever, pneumonia, supportive thrombophlebitis, infection of vascular grafts and other disease characterized by bacteremia.

Glucose Broth supplemented w/ 0.05% SPS support the growth of a wide variety of clinically important pathogenic microorganisms, including fastidious organisms. Waisbren, Carr and Dunnett used Glucose Broth for testing antibiotic sensitivity by the tube dilution method. This medium is also used to study glucose fermentation where pH indicator is not desired. Glucose Broth was developed to exclude the ingredients like beef extract that would contain small amount of carbohydrates. Thus, the glucose fermentation studies can be performed more accurately using only pure 0.5% glucose as the source of carbohydrate.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymatic hydrolysate	10.000
Glucose	5.000
Sodium chloride	5.000
Sodium polyanethol sulphonate	0.500

PRINCIPLE

Casein enzymatic hydrolysate and glucose serve as sources of essential nutrients and energy respectively to support the growth of many fastidious organisms. The casein enzymatic hydrolysate used is free of carbohydrates and glucose acts as source of energy by being the only fermentable carbohydrate. The broth gives rapid growth and hastens the early development of injured cells. Sodium chloride maintains the osmotic equilibrium.

Sodium polyanethol sulfonate (SPS) is an anticoagulant and a surface-active agent which is widely employed as an additive to fluid blood culture media. It is generally considered to enhance the rate and speed of bacterial isolations by counter-acting the bacterial inhibitors of human blood. SPS is known to neutralize the bactericidal activity of fresh human serum and to inhibit phagocytosis.

INSTRUCTION FOR USE

1. Remove the plastic cap and disinfect the part of the rubber stopper which is now exposed.
2. Draw patient's blood with the sterile needle and syringe and transfer the blood sample immediately into the culture bottle by puncturing the rubber stopper with the needle and injecting the blood.
3. Venting may be required for aerobic culture and not in case of anaerobic cultures.
4. Incubate at 35-37°C for 18-24 hours and further for 7 days to confirm negative results.

Note: Glucose Broth W/ 0.05% SPS is a ready to use liquid media in glass bottle. The medium is pre-sterilized; hence sterilization is not required.



QUALITY CONTROL SPECIFICATIONS

Appearance of the medium	:	Light yellow colored, clear solution.
Quantity of Medium	:	25ml / 50ml of the medium in glass bottle
pH (at 25°C)	:	7.3 ± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	35-37°C	18-24 hours
<i>Staphylococcus aureus</i>	6538	50-100	Luxuriant	35-37°C	18-24 hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	35-37°C	18-24 hours
<i>Escherichia coli</i>	8739	50-100	Luxuriant	35-37°C	18-24 hours
<i>Streptococcus pyogenes</i>	19615	50-100	Luxuriant	35-37°C	18-24 hours
<i>Streptococcus pneumonia</i>	6303	50-100	Luxuriant	35-37°C	18-24 hours
<i>Salmonella Typhi</i>	6539	50-100	Luxuriant	35-37°C	18-24 hours

PACKAGING:

Aluminium capped bottles containing 25ml (Paediatric) or 50 ml (Adult) media.

STORAGE

On receipt, store bottles in the dark at 10 to 25° C. Avoid freezing and overheating. The medium may be used up to the expiration date and incubated for the recommended incubation times. Bottles from unopened packages can be used up to the expiration date. Opened bottles must be used immediately.

Product Deterioration: Do not use bottles if they show evidence of microbial contamination, discoloration, or any other signs of deterioration.

DISPOSAL

After use, prepared media, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Manual of Clinical Microbiology, 1999, 7th Edition, Editor in Chief Patrick R. Murray, ASM Press.
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3. Evans, G.L., T. Cekoric Jr., R.I. Searcy, 1968. Comparative effects of anticoagulants on bacterial growth in experimental blood cultures. Am. J. Med. Technol., 34:103.
4. Evans, G.L., et al 1966. Effects of Anticoagulants on Antibacterial Action of Blood. Clin. Res., 14:484.
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6. May, J.R., A.E. Voureka, A. Fleming, 1947. Some problems in the Titration of Streptomycin, Br. Med. J., 1:627.
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QTY.
Quantity

**LOT/
B. NO.**
Lot / Batch Number


Temperature Unit


Manufacturer


Best Before

GMP
Certification of
Good Manufacturing Practices

REF
Catalogue No.

EC REP MedMar GmbH
Buckenhorn 10,
49163 Münster, Germany
Authorized Representative


European Conformity


Consults Instructions for use :


QR
Code

IVD
For In Vitro Diagnostic Use

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

***For Lab Use Only**
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