



Ready Prepared Media

Technical Information

MiCrome Strep B Selective Agar Plate

Product Code: PM 2966

Application: Recommended for selective isolation of Group B streptococci from clinical sample.

Composition**

Ingredients	Gms / Litre
Peptone special	10.000
Yeast extract	4.300
Chromogenic mixture	7.500
Phenol red	0.025
Agar	15.000
GCN Selective Supplement (MS2273)	1 vial
*Ingredients	Concentration
Colistin	10mg
Nalidixic acid	10mg
Gentamicin	2mg
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Group B *Streptococcus* is a leading infection causing illness and death in newborns. Group B streptococci can also cause serious diseases in pregnant women, the elderly, and adults with other illnesses. GBS normally reside in the vagina of women and rectum of men and women (1). In newborns, group B strep is the most common cause of sepsis (infection of the bloodstream) and meningitis (infection of the lining and fluid surrounding the brain) and a common cause of pneumonia. In adults, group B strep can rarely lead to serious bloodstream infections, urinary tract infections, skin infections, and pneumonia, especially in people with weak immune systems. Heavy colonization of the maternal genital tract is associated with colonization of infants and risk of neonatal disease (2).

The sample collection is usually done by collection of vaginal and rectal swab between 35 and 37 weeks of pregnancy. The swab is then processed on MiCrome Strep B Selective Agar Base. For the conventional methods optimum recovery is however achieved by selective enrichment into Todd Hewitt broth with colistin and nalidixic acid and then subculture on Blood Agar (3,4).

Peptone special and yeast extract provides nitrogeous and carbonaceous compounds, long chain amino acids, vitamins and essential nutrients for the growth of Streptococci. One of the chromogenic substrate is utilized by Group B Streptococci resulting in purple coloured colonies, while the other Streptococci either give blue or bluish green coloured colonies with yellow background. Phenol red is the indicator dye.

Type of specimen

Clinical samples : vaginal secretions, skin scrappings, etc.

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6). After use, contaminated materials must be sterilized by autoclaving before discarding.



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Warning and Precautions

In Vitro diagnostic use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium .
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Quality Control

Appearance

Sterile MiCrome Strep B Selective Agar , Modified in 90mm disposable plate with smooth surface and absence of black particles/cracks/bubbles .

Colour

Red coloured medium

Quantity

25 ml of medium in 90mm disposable plate

pH

7.20-7.60

Sterility Check

Passes release criteria

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours

Organism	Inoculum(CFU)	Growth	Recovery	Colour of colony
Escherichia coli ATCC 25922 (00013*)	$\geq 10^3$	Inhibited	0%	
Staphylococcus aureus subsp. aureus ATCC25923 (00034*)	$\geq 10^3$	Inhibited	0%	
Streptococcus agalactiae ATCC 13813	50-100	Luxuriant	$\geq 50\%$	Purple
Enterococcus faecalis ATCC 29212 (00187*)	50-100	Luxuriant	$\geq 50\%$	Bluish green
Enterococcus faecium ATCC 19434	50-100	Luxuriant	$\geq 50\%$	Green w/yellow Background

Key- (*) Corresponding WDCM numbers



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Storage and Shelf Life

- On receipt store between 2-8°C Use before expiry date on the label.
- Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

Further Reading

1. Anthony BF, Okada DM, Hobel CJ. Epidemiology of group B *Streptococcus*: longitudinal observations during pregnancy. J.Infect Dis 1978; 137:524-30.
2. Murray P.R. , Baron J.H., Manual of Clinical Microbiology Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenenbaum R. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington,D.C.
3. NHS Processing swabs for Group B Streptococcal carriage Issue no.2.1,2006.
4. Prevention of perinatal group B Streptococcal disease: a public health perspective, Centres for Disease control and Prevention. MMWR Recomm Rep 1996; 51:1-22
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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