

HiCrome Strep B Selective Agar Base**M1840**

HiCrome Strep B Selective Agar Base is recommended for selective isolation of Group B Streptococci .

Composition :**

Ingredients	Grams/Litre
Protein hydrolysate	17.50
Buffers	2.50
Chromogenic mixture	2.54
Selective agents	0.11
Agar	15.00

Final pH (at 25°C) 7.3 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 37.65 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C and aseptically add the rehydrated contents of one vial of HiCrome Strep B Selective Supplement (FD273). Mix well and pour in sterile Petri plates.

Principle and 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 HiCrome 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)

Protein hydrolysate provides essential nutrients for the growth of Streptococci. Buffers present provides buffering to the medium . Selective agents in the medium inhibits

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accompanying flora. One of the substrate in the chromogenic mixture is cleaved by beta-glucosidase possessed by Group B Streptococci resulting in blue coloured colonies.

Quality Control :**Appearance of Powder :**

Cream to yellow coloured homogeneous free flowing powder.

Gelling :

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium:

Yellow coloured, clear to very slightly opalescent gel forms in Petri plates.

Reaction :

Reaction of 3.77 % w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.

Cultural Response :

Cultural characteristics observed with added Hicrome Strep B Selective Supplement (FD273), after an incubation at 35-37°C for 18 - 24 hours.

Organisms (ATCC)	Growth	Colour of colony
<i>Streptococcus agalactiae</i> (13813)	good- luxuriant	blue
<i>Staphylococcus aureus</i> (25923)	inhibited	-
<i>Escherichia coli</i> (25922)	inhibited	-
<i>Neisseria meningitidis</i> (13090)	inhibited	-

References :

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 Tenover F. C., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
3. Prevention of perinatal group B Streptococcal disease: a public health perspective . Centres for Disease control and Prevention. MMWR Recomm Rep 1996; 51:1-22
4. NHS Processing swabs for Group B Streptococcal carriage Issue no.2.1,2006

Storage and Shelf-life :

Store dehydrated and prepared medium at 2 - 8°C. Use before expiry date on the label.