Chromatic GBS

Chromogenic medium for detection of group B streptococci.

TYPICAL FORMULA	(g/l)
Heart Extract	3.5
Yeast Extract	10.0
Casein Peptone	2.5
Soy Peptone	3.5
Ferric Citrate	0.5
Chromogenic Mix	3.3
Agar	15.0
Final pH 7.2 ± 0.2 at 25°C	

DESCRIPTION

Chromatic GBS is a chromogenic medium used with supplements for the selective isolation and differentiation of *Streptococcus agalactiae* (Lancefield group B). This medium is not intended for use in the diagnosis of disease or other conditions in humans.

PRINCIPLE

Heart extract and peptones provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Yeast extract is a source of vitamins, particularly of group B. The chromogenic mix allows the identification of bacteria on the basis of the colony colour. Agar is the solidifying agent.

This medium is supplemented with Tween 20 (ref. 80032), which is a surfactant agent, and Chromatic GBS Supplement (ref. 81103), consisting of selective agents and additional chromogenic substrates.

PREPARATION

Suspend 38.3 g of powder in 1 liter of deionized or distilled water. Bring to boil and shake until completely dissolved. Add 3 ml of Tween 20 Supplement. Sterilize at 104°C for 10 minutes. Cool up to 45-50°C. Aseptically, add the rehydrated contents of 2 vials (10 ml) of Chromatic GBS Supplement. Mix well and pour in Petri dishes.

TECHNIQUE

Inoculate the plates by directly streaking the sample on the agar surface or spread plating from an enrichment culture to obtain well-isolated colonies.

Incubate at 35 ± 2°C for 18-24 hours in aerobic atmosphere. Further 24 h incubation may be required.

INTERPRETATION OF RESULTS

Streptococcus agalactiae (group B) grow on this medium producing mauve to red colonies.

Enterococcus spp. (group D) form blue to purple colonies.

Other organisms (if not inhibited) appear as blue or colourless colonies.

Notes:

- Due to nutritional variation, some strains may result in poor growth or fail to grow on this medium.
- Further testing should be conducted to confirm the presumptive identification of GBS isolated on this medium.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until sings of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

For professional use only. Operators must be trained and have certain experience in the laboratory methods. Please read the instructions carefully before using this product. Reliability of assay results cannot be guaranteed if there are any deviations from the instructions in this document.

Consult the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. Public Health England (2021) UK SMI ID 4 issue 4: Identification of *Streptococcus* species, *Enterococcus* species and morphologically similar organisms. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1019677/ID_4i4.pdf
2. Murray P.R. Manual of Clinical Microbiology 7th ed. 2005, p. 64-67. ASM Press, Washington D.C.
3. Dunne W.M. Comparison of selective broth medium plus neomycin- nalidixic acid agar and selective broth medium plus Columbia colistin- nalidixic acid agar for detection of group B streptococcal colonization in women. Journal of clinical microbiology. 11/1999; 37(11): 3705-6. ISSN: 0095-1137.
4. Finegold S. M. Diagnostic Microbiology 7th ed. 1986, p. 205-224. Published C.V. Mosby Co. St. Louis.

LIOFILCHEM® S.r.l.
Via Scozia, 64026 Roseto degli Abruzzi (TE) ITALY
Tel +39 0858930745 Fax +39 0858930330 www.liofilchem.com liofilchem@liofilchem.com

PRODUCT SPECIFICATIONS

NAME
Chromatic GBS

STORAGE
10-30°C

pH OF THE MEDIUM
7.2 ± 0.2

USE
Chromatic GBS is used with supplements for the selective isolation and differentiation of *S. agalactiae* (Lancefield group B)

TECHNIQUE
Refer to technical sheet of the product

SHELFLIFE
4 years

QUALITY CONTROL
Appearance of Dehydrated Medium: Free-flowing, homogeneous, beige

Appearance of Prepared Medium: Slightly opalescent, light amber

Expected Cultural Response

Inoculum: 50-100 CFU (productivity); 10^4-10^6 CFU (selectivity)

Incubation: 18-24 h / 35 ± 2°C

Microorganism		Growth	Colony Colour
Streptococcus agalactiae	ATCC 13813	Good	Mauve to red
Enterococcus faecalis	ATCC 19433	Good	Blue to purple
Escherichia coli	ATCC 25922	Inhibited	---

PACKAGING
610639 Dehydrated medium 500 g of powder in plastic bottle

TABLE OF SYMBOLS

LOT Batch code	Consult instructions for use	Manufacturer	Use by
REF Catalogue number	Temperature limitation	Contains sufficient for <n> tests	Keep away from sunlight

LIOFILCHEM® S.r.l.
Via Scozia, 64026 Roseto degli Abruzzi (TE) ITALY
Tel +39 0858930745 Fax +39 0858930330 www.liofilchem.com liofilchem@liofilchem.com