TM 1632 -CHROMOGENIC ENTEROCOCCUS FAECIUM AGAR BASE

INTENDED USE

For identification and differentiation of *Enterococcus faecium* from faeces, sewage and water supplies.

PRODUCT SUMMARY AND EXPLANATION

Chromogenic Enterococcus faecium Agar Base is used for identification of *Enterobacter faecium* from faeces, urine, soil, food, water, plants and animals. *E.faecium* is commonly found in the gastrointestinal tracts of humans. The resistance developed by *Enterococcus* species to various antimicrobials has led them to being a major cause of human infections including nosocomial infections. *E.faecalis* causes 80-90% of infection while *E.faecium* causes the majority of the remainder.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	23.000
Agar	15.000
Arabinose	10.000
Sodium chloride	5.000
Corn starch	1.000
Phenol red	0.100
Chromogenic mixture	0.100

PRINCIPLE

This medium contains Peptone, special as a source of carbon, nitrogen and growth nutrients. Chromogenic mixture containing chromogenic substrates is specifically cleaved by *Enterococcus* species using the enzyme β-glucosidase, to produce blue coloured colonies. Differentiation among *Enterococcus* species is obtained with the use of fermentable carbohydrate, arabinose which is only utilized by *E.faecium* to produce green colored colonies while *E.faecalis* retains the blue color. Cephalexin and Aztreonam present in the medium as a supplement helps in inhibiting gram positive bacteria but not *Enterococcus* sp. Corn starch neutralizes the toxic metabolites and Sodium chloride maintains the osmotic equilibrium. Phenol red serves as a pH indicator and agar is a used as a solidifying agent.

INSTRUCTION FOR USE

- Suspend 54.20 grams in 1000 ml distilled water.
- Gently heat to boiling with swirling to dissolve the medium completely. Do not autoclave.
- Cool at 40 - 50°C.
- Aseptically add rehydrated contents of 2 vials of Chromogenic Enterococcus Faecium Selective Supplement (TS 215).
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	:	Light yellow to pinkish beige homogeneous free flowing powder
Appearance of prepared medium	:	Red colour, clear to slightly opalescent gel
pH (at 25°C)	:	7.8± 0.2

INTERPRETATION

Cultural characteristics observed after incubation with addition of Chromogenic Enterococcus faecium Selective Supplement (TS 215). Recovery rate is considered 100% for bacteria growth on Soya Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Recovery	Incubation Temperature	Incubation Period
Enterococcus faecalis	29212	50-100	Luxuriant	Blue	>=50%	35-37°C	18 - 24 Hours
Enterococcus faecium	19434	50-100	Luxuriant	Green	>=50%	35-37°C	18 - 24 Hours
Enterococcus hirae	10541	50-100	Luxuriant	Blue	>=50%	35-37°C	18 - 24 Hours
Escherichia coli	25922	≥1000	Inhibited	-	0%	35-37°C	18 - 24 Hours
Pseudomonas aeruginosa	27853	≥1000	Inhibited	-	0%	35-37°C	18 - 24 Hours
Staphylococcus aureus	25923	≥1000	Inhibited	-	0%	35-37°C	18 - 24 Hours

PACKAGING

In pack size of 100gm & 500gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

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

DISPOSAL

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

REFERENCES

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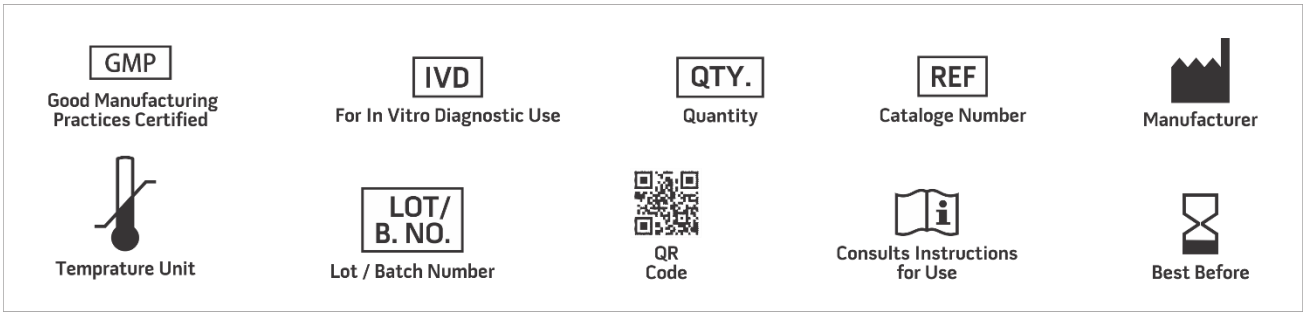
5. M. Ford, J.D. Perry, F.K. Gould, Use of cephalexin-aztreonam-arabinose agar for selective isolation of Enterococcus faecium, J. Clin. Microbiol., 32(12), 2999-3001. (1994)



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

***For Lab Use Only**

Revision: 25 February, 2022