HiCrome™ Enterococcus faecium Agar Base

Recommended for the identification of *Enterococcus faecium* from water, faeces and sewage samples.

M1580

Composition **

Ingredients	Grams/Litre
Peptone, special	23.00
Corn starch	1.00
Sodium chloride	5.00
Chromogenic substrate	0.10
Arabinose	10.00
Phenol red	0.10
Agar	15.00

Final pH (at 25°C) 7.8 ± 0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 27.1 grams in 500 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 1 vial of Enterococcus faecium Selective Supplement (FD226). Mix well and pour into sterile Petri plates.

Principle and Interpretation

HiCrome™ *Enterococcus faecium* Agar Base is recommended for the chromogenic detection of *Enterococcus faecium* from urine, faeces, soil, food, water, plants and animals. *E. faecium* is commonly found in the gastrointestinal tracts of humans (1). The resistance exhibited by *Enterococcus* species to various antimicrobials has led them to being a major cause of human infections including nosocomial infections (2). *E. faecalis* causes 80-90% of infection while *E. faecium* causes the majority of the remainder (3). The use of selective media for the isolation of Enterococci has been previously reviewed, including those containing chromogenic substrates (4) and media containing cephalexin-aztreonam supplements. Enterococcus species possess the enzyme glucosidase, which specifically cleaves the chromogenic substrate to produce blue coloured colonies. *E. faecium* ferment arabinose; and cleaves the chromogenic substrate present in the media to produce green coloured colonies along with yellow colouration to the medium. *E. faecalis* does not ferment arabinose and therefore retains the blue colour.

Peptone special serves as a source of carbon, nitrogen and essential growth nutrients. Corn starch neutralizes the toxic metabolites while sodium chloride maintains the osmotic equilibrium. Phenol red serves as a pH indicator with arabinose being the fermentable carbohydrate.

Type of specimen

Clinical samples - Urine, faeces, Food samples, Water samples.

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5, 6).

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (7).

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(8)

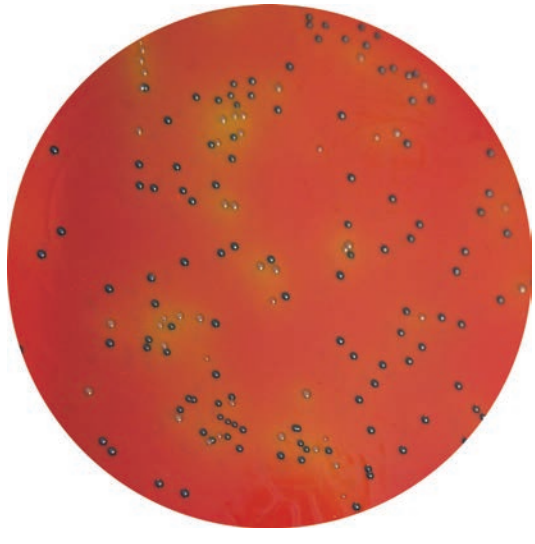
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic 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. Some species may show poor growth due to nutritional variations.
2. Slight colour variation may be observed depending upon the utilization of the substrate by the organism.



M1580 HiCrome™ Enterococcus faecium Agar Base (Mixture)

HiCromeVeg™ Single Streak Rapid Differentiation Series *Freedom from BSE / TSE worries*

HiCrome™ ***Enterococcus faecium*** Agar Base (M1580) is also available as HiCrome™ ***Enterococcus faecium***
HiVeg™ Agar Base (MV1580) wherein all the animal origin nutrients have been replaced by vegetable based nutrients.

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Performance and Evaluation

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

Quality Control

Appearance of Powder : Light yellow to pinkish beige coloured, homogeneous, free flowing powder.

Gelling : Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium : Red coloured, clear to slightly opalescent gel forms in Petri plates.

Reaction : Reaction of 5.42% w/v aqueous solution at 25°C. pH:7.8 ± 0.2 .

Cultural Response : Cultural characteristics observed (with added *Enterococcus faecium* Selective Supplement (FD226) after an incubation at 35-37°C for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
Enterococcus faecium (19434 (00010*)	50-100	luxuriant	≥50%	green
Enterococcus faecalis (29212) (00087*)	50-100	luxuriant	≥50%	blue
Enterococcus hirae (10541)	50-100	luxuriant	≥50%	blue
Escherichia coli (25922) (00013*)	≥10^3	inhibited	0%	-
Pseudomonas aeruginosa (27853) (00025*)	≥10^3	inhibited	0%	-
Staphylococcus aureus subsp aureus (25923) (00034*)	≥10^3	inhibited	0%	-

Key : * = corresponding WDCM Numbers

Storage and Shelf-life

Store between 2-8°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (5, 6).

References

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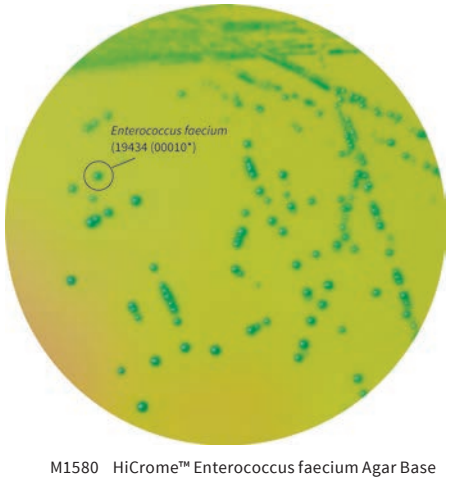

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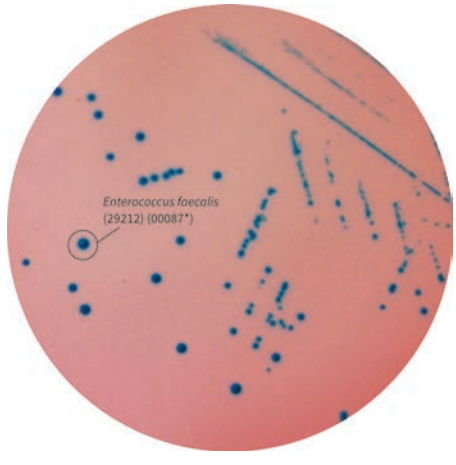

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