Dehydrated Culture Media
Bases / Media Supplements

Technical Information

Esculin Fermentation Broth M1382

Product Code: DM 2382

Application: - Esculin Fermentation Broth is used for cultivation and differentiation of bacteria which hydrolyze esculin.

Composition**

Ingredients	Gms / Litre
Beef heart, infusion from	500.000
Tryptose	10.000
Sodium chloride	5.000
Esculin	1.000
Agar	1.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Esculin hydrolysis is recommended in the differentiation and identification of a variety of organisms [1, 3]. Esculin Fermentation Broth is used for cultivation and differentiation of bacteria which hydrolyze esculin. Tryptose and infusion from beef heart provide amino acids or other nitrogenous substances that support bacterial growth. Sodium chloride maintains osmotic equilibrium. Esculin is a glycoside incorporated as a differential agent to facilitate the identification of various organisms. Hydrolysis of esculin yields esculetin and dextrose.

Methodology

Suspend 34.50 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance
Cream to yellow homogeneous free flowing powder

Coloured and Clarity of Prepared Medium Amber
Colour and Clarity of prepared medium clear to slightly opalescent with purplish tinge

Reaction
Reaction of 3.45% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH range 6.80-7.20

Cultural Response/ characteristices
DM 2382: Cultural characteristics observed after an incubation at 35- 37°C for 18- 24 hours.

Organism	Growth	Esculin hydrolysis
Escherichia coli ATCC 25922	good	Negative reaction
Enterococcus faecalis ATCC 29212	luxuriant	Positive reaction, blackening of medium
Enterococcus faecium ATCC 19434	luxuriant	Positive reaction, blackening of medium
Yersinia enterocolitica ATCC 27729	luxuriant	Positive reaction, blackening of medium

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Shigei 1992, In Isenberg (ed.); Clinical microbiology procedures handbook, Vol-1, American Society for Microbiology, Washington, D.C.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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