

HERELLEA AGAR

A medium for the isolation of the Gram-negative bacteria

Code: KM3432

Typical formula	(g/l)
Tryptone	15.00
Soy Peptone	5.00
Sodium Chloride	5.00
Lactose	10.00
Maltose	10.00
Bile Salts No.3	1.25
Bromocresol Purple	0.02
Agar	16.00

pH 6.8 +/- 0.2

Directions

Suspend 62g in 1000 ml of cold distilled water. Heat to boiling, distribute and sterilise at 121°C for 15 minutes.

Description

Herellea Agar, prepared according to the formula of Mandel, Wright and McKinnon, is a selective medium for the isolation of the Gram-negative bacteria and differentiation of the fermentative from the non-fermentative bacteria. Herellea Agar is particularly suitable for the isolation of *Mima polymorpha* and *Herellea vaginicola* (included together in the species *Acinetobacter*). Two carbohydrates, lactose and maltose, are present in the medium together with bromocresol purple which turns to yellow when there is acidification of the substrate. The enterobacteria grow with yellow colonies surrounded by a yellow halo. *Acinetobacter* does not ferment the two sugars and grows with colonies of the same colour of the medium, sometimes with a slight colour change to a more intense violet. The Bile Salts No.3 inhibits the Gram-positive bacteria and *Neisseria* spp.

Quality assurance (37°C-24 hrs)

Productivity control

E.coli ATCC 25922: growth, yellow colonies

P.mirabilis ATCC 12453: growth, colourless colonies

S.typhimurium ATCC 14028: growth, colourless colonies

Selectivity control

E faecalis ATCC 29212: inhibited

Storage

Dehydrated medium: 15-30°C

User prepared plates: 15 days at 2-8°C

Reference

Mandel, Wright and McKinnon (1964) J. Bact, 68, 1524.

HAEMOGLOBIN POWDER (Soluble)

Code: ES2009

Haemoglobin is a specially prepared powder that forms a 2 % solution in water and a stable suspension after sterilisation.

TYPICAL ANALYSIS

Loss on drying3.7 %
pH 8.4
Salmonella neg.
Microbiological performance in "Chocolate agar" passes test

HEART INFUSION AGAR

A general purpose nutrient rich agar medium

Code: KM4010

Typical formula	(g/l)
Beef Heart Infusion	17.5
Tryptose	10.0
Glucose	2.0
Sodium Chloride	5.0
Disodium Hydrogen phos	2.5
Agar	12.0

pH 7.4 +/- 0.2

Directions

Weigh 49g of Heart Infusion Agar in 1000ml of cold distilled water, heat to boiling, distribute and autoclave at 121°C for 15 minutes.

Description

Heart Infusion Agar is a general purpose nutrient media for the cultivation of a large variety of micro-organisms, including those difficult to cultivate on other media, such as streptococci, meningococci and pneumococci. With the addition of 6 % (v/v) of horse blood and chocolate at 80°C Heart infusion Agar is suitable for the culture of *Haemophilus* spp.

Heart Infusion Agar can be used for the extensive cultivation of microorganisms, and is thus suitable for the preparation of vaccines.

Quality assurance (24-48 h /30°C)

Productivity control

S.aureus ATCC 25923: growth

E.coli ATCC 25922: growth

Storage

Dehydrated media: 15-30°C

User prepared plates and tubes: 1 month at 2-8°C

HEKTOEN ENTERIC MEDIUM

A medium for the isolation and differentiation of enteric pathogens.

Code: KM1036

Typical formula	(g/l)
Tryptose	12.00
Yeast Extract	3.00
Bile Salts Bios No.3	9.00
Lactose	12.00
Sucrose	12.00
Salicin	2.00
Sodium Chloride	5.00
Sodium Thiosulphate	5.00
Fe-Ammonium Citrate	1.50
Brom Thyme Blue	0.065
Acid Fuchsin	0.100
Agar	15.00

pH 7.5 +/- 0.2

Directions

Suspend 76g in 1000ml of cold distilled water, allow to stand for 10 minutes then heat to boiling. Cool to 50°C and pour into sterile plates. **Do not** autoclave or overheat this medium.

Description

Hektoen Enteric Agar is a selective medium for the isolation and differentiation of enteric pathogens. The medium makes it easy to distinguish microorganisms that ferment lactose, sucrose and salicin from those which do not ferment these sugars. The use of Hektoen Enteric Agar also permits a presumptive differentiation between *Salmonella* and *Shigella*. The table below gives the culture characteristics of some microorganisms on Hektoen Enteric Agar after incubation for 24 hours at 37°C.

King conducted experiments with this medium, comparing it with SS Agar and Levine EMB Blue Agar, on approximately 8000 samples of faeces. Both in primary isolation and after enrichment in Selenite Broth, Hektoen Enteric Agar produced better results than the media used for comparison, particularly with regard to the isolation of *Shigella*. These results can probably be attributed to the low toxicity of the pH indicator system and selective substances in addition to the relatively abundant quantity of peptones and carbohydrates in the medium. Hektoen Enteric Agar has been tested by King for the isolation of *Salmonella* and *Shigella* from faecal specimens with results comparable to the medium prepared in the laboratory.

Quality assurance (37°C-24hrs)

Productivity control

S.typhimurium ATCC 14028: growth, blue to green/blue colonies with black centres
S.fexneri ATCC 12022: growth, green to blue green colonies

Selectivity control

E.coli ATCC 25922: poor growth, yellow to salmon colonies with precipitate
E.faecalis ATCC 19433: inhibited

Storage

Dehydrated media: 15-30°C
User prepared plates: 7 days at 2-8°C

References

King, S. & Metzger, W.I. (1968), Appl. Microbiol. 16, 579-581
Taylor, W.I. (1965), Am. J. Clin. Path., 44, 171-175