Product :
HEKTOEN ENTERIC AGAR

Also known as
HE Agar; HEA

Specification
Solid, selective and differential culture medium for isolation of pathogenic enterobacteria from contaminated samples according to ISO 21567 standard.

Formula * in g/L

Meat peptone	12.00	Ammonium ferric citrate	1.50
Yeast extract	3.00	Acid fuchsin	0.10
Bile salts	9.00	Bromothymol blue	0.06
Lactose	12.00	Agar	15.00
Sucrose	12,00		
Salicin	2.00	Final pH 7,5 ±0,2 at 25 ºC	
Sodium chloride	5.00		
Sodium thiosulfate	5.00		

* Adjusted and /or supplemented as required to meet performance criteria

Directions
Suspend 77 g of powder in 1 L of distilled water and let it soak. Heat stirring constantly, until boiling. Cool to 55-60°C and pour into sterile plates. Do not autoclave. This medium is very thermolabile and overheating should be avoided.

Description
This culture medium, originally developed by King and Metzger, has a high nutrient content, peptones, fermentable sugars and combination of indicators. All these characteristics and the bile salts make it a very selective and effective medium.

Technique
In order to avoid the spreading of Proteus, it is necessary that the agar surface be perfectly dry à the moment of inoculation. Inoculation must be carried out by surface streaking, directly from rectal swabs or faeces. If colonies are well separated after 18 hours of incubation, the first characteristic appearances or colony morphology may be observed:
- Shigella spp., Proteus inconstans: Raised colonies, green colour.
- Salmonella spp.: Green-blue colonies, with or without black centre.
- Pseudomonas spp.: Irregular colonies, plain, green or brown.
- Companion and non pathogenic bacteria: Salmon coloured colonies.

Quality control
Incubation temperature: 37°C ±1,0 **Incubation time:** 20 - 24 h

Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) / 10^4-10^6 CFU (Selectivity) according to ISO 11133:2014/Amd 1:2018 .

Microorganism	Growth	Remarks
Enterococcus faecalis ATCC® 29212	Inhibited	Light Pink small colonies
Escherichia coli ATCC® 25922	Partial Inhibited	-
Proteus mirabilis ATCC® 43071	Good	Black colonies, Greenish-Blue medium
Salmonella enteritidis ATCC® 13076	Good	Black colonies, Greenish-Blue medium
Salmonella typhimurium ATCC® 14028	Good	Black colonies, Greenish-Blue medium
Shigella sonnei ATCC® 25931	Good	Green to blue colonies
Shigella flexneri ATCC® 12022	Good	Green to blue colonies

References

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· HORWITZ, W. (2000). Official Methods of Analysis of the AOAC International 17th ed. Gaithersburg Md. USA.
. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
· ISO 21567 Standard (2004) Microbiology of food and animal feeding stuffs.- Horizontal method for the detection of Shigella spp.
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Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 ºC to 30 ºC).