

Hektoen Enteric (HE) Agar

Product No. CM210A

Intended Use

Used for the selective isolation of *Salmonella spp.* (GB)

Specification 250 g

Ingredients	(g/L)
Peptone	5.0
Beef extract	3.0
Saccharose	12.0
Lactose	2.5
Sodium chloride	1.0
Bile salt	20.0
Ammonium ferric citrate	0.8
Acid fuchsin	0.1
Bromothymol blue	0.064
Salicin	2.0
Sodium thiosulphate	6.8
Sodium deoxycholate	2
Agar	15.0
(pH 7.5 ± 0.2)	

Additional Reagents

No

Principle and Interpretation

Peptone and beef extract are used as basic nutrients in the medium to provide nitrogen source and carbon source for cell growth. NaCl maintained osmotic pressure equilibrium. Bile salt and sodium deoxycholate mainly inhibited the growth of gram-positive bacteria. Sucrose, salicylin and lactose in the culture medium were used as identification system, bromothymol blue and acid furosine were used as acid-base indicators, which could distinguish the bacteria that fermented sugars from those that did not. The former was orange colony and the latter was light blue-green colony. Ammonium ferric citrate and $\text{Na}_2\text{S}_2\text{O}_3$ were used as the indicator and substrate for H_2S production, respectively. The edges

of *Salmonella* colonies that produced H₂S but did not ferment sugars were colorless and translucent, and the center was black.

Directions

Suspend 90.8 g of the powder in 1 L of distilled water. Heat and boil to sterilize. Cool to 48 °C ± 2 °C, pour into sterile petri dishes.

Precautions

No

Quality Control

Microorganisms	Inoculum (CFU)	Reference Medium	Method	Incubation	Growth (Productivity Ratio : PR)
<i>Salmonella typhimurium</i> ATCC 14028	50-250	TSA	Quantitative	36°C±1°C 18h±24h	PR≥0.5. Green-blue colony with black center
<i>Salmonella enterica</i> subsp. <i>enterica</i> serovar <i>Typhimurium</i> CICC 25045 [CMCC(B) 50976]					
<i>Shigella flexneri</i> CMCC(B) 51572	-	-	Qualitative	36°C±1°C 18h±24h	Green-blue colony
<i>Enterococcus faecalis</i> ATCC 29212	-	-	Semi-quantitative	36°C±1°C 18h±24h	G≤1
<i>Enterococcus faecalis</i> CICC 25019 [CMCC(B) 32482]					

Storage Conditions

Keep container tightly closed and store in a cool dry place.

Shelf Life

3 years.

Related Products

Product No.	Product Name	Specification
GCM210A	Hektoen Enteric (HE) Agar (Granule)	250 g

PB038

Hektoen Enteric (HE) Agar Plate

20 Plates

For laboratory use in industry or R&D purpose. Not for drug, household or other uses.