

TM 1355 - HEMORRHAGIC COLI (HC) AGAR

INTENDED USE

For isolation and enumeration with an enzyme labeled monoclonal antibody of *Escherichia coli*.

PRODUCT SUMMARY AND EXPLANATION

Hemorrhagic colitis is a type of gastroenteritis in which certain strains of the bacterium *Escherichia coli* infect the large intestine and produce a toxin that causes bloody diarrhea and other serious complications. *Escherichia coli* O157:H7 was recognized as the cause of hemorrhagic colitis. Outbreaks can be caused by eating undercooked beef, especially ground beef, or by drinking unpasteurized milk or juice. HC Agar is used for isolation and enumeration of *E. coli*, the primary strain causing hemorrhagic colitis.

Homogenize 10 grams of test sample in 90 ml Peptone Water (prepare 1:100 dilutions if counts are expected to be high). Pipette 1 ml aliquots through disposable 100 µm pre filter and add to 10 ml Peptone Water filtered through Hydrophobic Grid Membrane Filters. Lay the filters onto Hemorrhagic Coli (HC) Agar and incubate at 43°C for 16-20 hours. Replicate colony growth onto other HGMFs using HGMF replicator. Incubate replicates on HC Agar at 43°C for 16-20 hours and test original filters with conjugated antibody.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	20.000
Sorbitol	20.000
Sodium chloride	5.000
Bile salts	1.120
Bromocresol purple	0.015
Agar	15.000

PRINCIPLE

Tryptone in the medium is a source of carbon, nitrogen, vitamins and minerals. Sodium chloride maintains the osmotic balance of the medium. *E. coli* O157:H7 does not ferment sorbitol and produces colourless colonies. Bromocresol purple acts as a pH indicator. Bile salts inhibit accompanying gram-positive bacteria.

INSTRUCTION FOR USE

- Dissolve 61.13 grams in 1000 ml purified/ distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Purple coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.2±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Escherichia coli</i> O157:H7	-	50-100	Good-luxuriant	≥50%	43°C	16-20 Hours
<i>Proteus mirabilis</i>	25933	50-100	Good	40-50%	43°C	16-20 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
3. Riley L. W., Remis R. S., Helgeson S. D., 1983, N. Engl. J. Med., 308:681.
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
5. Todd et al, 1988, Appl. Environ. Microbiol., 54:2536.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Bockstrasse 10, 49163 Moenster, Germany	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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