CM 22320 –MUELLER HINTON AGAR

INTENDED USE

Forcultivationof*Neisseria* and for determinationofsusceptibility of microorganisms

PRODUCT SUMMARY ANDEXPLANATION

MuellerHinton agarisused for cultivationof*Neisseria* & for determination of susceptibility of microorganisms to antibiotics. It is formulated by Mueller andHintonfor the primary isolation of *Neisseria* species. Bauer and Kirby recommended this medium for performing antibioticsusceptibility tests using a single disc of high concentration. It has become the standard medium for antimicrobialsusceptibility testing and its performance is in accordance to Clinical and Laboratory Standard Institute (CLSI), formerlyNCCLSand complies with requirements of the WHO, FDA and EUCAST. Mueller Hinton Agar has been selected bytheCLSI for several reasons: (i) It demonstrates good batch-to-batch reproducibility for susceptible testing, (ii) It islowinsulfonamide, trimethoprim and tetracycline inhibitors, (iii) It supports the growth of most non-fastidious bacterialpathogens and (iv) Many data and much experience regarding its performance have been recorded. WHO Committeeon Standardization of Susceptibility Testing has accepted Mueller Hinton Agar for determining the susceptibilityofmicroorganisms because of its reproducibility.

COMPOSITION

Ingredients	Gms / Ltr
Agar	17.000
Casein acid hydrolysate	17.500
Beef, infusion	2.000
Starch	1.500

PRINCIPLE

Themedium consist of Beef extract and Casein acid hydrolysate which provides nitrogen, vitamins, carbon, and amino acids. Starch is added toabsorbany toxic metabolites produced. Agar is the solidifying agent. The thymine/thymidine content of this medium isminimized (determined by disc diffusion procedure with *Enterococcus faecalis* ATCC 29212 and sulfamethoxazole-trimethoprimantibiotic) and levels of calcium and magnesium are adjusted (determined by *Pseudomonas aeruginosa*ATCC27853 and aminoglycoside antibiotics) to give consistent zones of inhibition as per specified diameters in theCLSIstandards.

INSTRUCTION FOR USE

1. Mueller HintonAgar is a ready to use solid media in glass bottle. The medium is pre-sterilized, hence sterilization isnot required.
2. Prior to use, medium in the bottle can be melted either by using a pre-heated water bath or any other method.
3. Slightly loosenthe cap before melting.
4. Pour liquefiedagar into each plate as desired and allow them to solidify at room temperature. Plates are now ready to inoculate or refrigerate for later use

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Light amber color, clear to slightly opalescent gel.
Quantity of Medium	:	100 ml of the medium in glass bottle
pH (at 25°C)	:	7.3± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION

Culturalcharacteristics observed after inoculation of 50-100 CFU, on incubation for bacteria**.** Recovery rate is considered 100% for bacteria growth on Soya Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Staphylococcus aureus	25923	50-100	Luxuriant	>=70%	30-35°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	30-35°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	>=70%	30-35°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	>=70%	30-35°C	18-24 Hours

PACKAGING

100mlglassbottle.

STORAGE

On receipt, store bottles in the dark at 10 to 25° C. Avoid freezing and overheating. The medium may be used up to the expiration date and incubated for the recommended incubation times. Bottles from unopened packages can be used up to the expiration date. Opened bottles must be used immediately. To prepare plates or tubes from the bottled medium, it must first be liquefied. Do not liquefy any leftovers for a second time

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

DISPOSAL

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

REFERENCES

1. Mueller, J.H. and Hinton, J. 1941. Proc. Soc. Exp. Biol. Med. 48: 3330-3333.
2. Gordon, M.H. and Hine, T.G.M. 1916. Br. Med. J. 18: 678-684.
3. Bauer, A.L., Kirby, W.M.M., Sherris, J.C., Turck, M. 1966. Am. J. Clin. Pathol. 45: 493-496.
4. World Health Organization. 1961. Standardization of methods for conducting microbic sensitivity tests. Technical Report Series No. 210, Geneva.
5. Food and Drug Administration. 1998. Bacteriological analytical manual, 8th ed., AOAC International, Gaithersburg, MD.
6. Wood, G.L. and Washington, J.A. 1995. Antibacterial susceptibility tests: dilution and disk diffusion methods, p. 1327-1341. In Murray, P.R., Baron, E.J., Pfaller, M.A., Tenover, F.C. and Yolken R.H. (Eds.). Manual of clinical microbiology, 6th ed., American Society for Microbiology, Washington, D.C.
7. National Committee for Clinical Laboratory Standards. 1997. Performance standards for antimicrobial disk susceptibility tests. Approved standard M2-A6. National Committee for Clinical Laboratory Standards, Wayne, PA.
8. Clinical and Laboratory Standards Institute (formerly NCCLS). 2006. Performance standards for antimicrobial disk susceptibility tests; approved standard, 9th ed. Clinical and Laboratory Standards Institute document M2-A9. Clinical and Laboratory Standards Institute, Wayne, PA.
9. Clinical and Laboratory Standards Institute. 2013. Standards for Antimicrobial Susceptibility Testing; Twenty Third Informational Supplement, M100-S23 (MS). Wayne, PA.
10. Matuschek, E., Brown, D.F.J. and Kahlmeter, G. 2014. Clin. Microbiol. Infect. 20: O255–O266.
11. The European Committee on Antimicrobial Susceptibility Testing. 2014. EUCAST Disk Diffusion Method for Antimicrobial Susceptibility Testing, version 4.0.

Quantity

Lot / Batch Number


Temprature Unit


Manufacturer


Best Before

Certification of Good Manufacturing Practices

Catalogue No.

Authorized Representative

European Conformity


QR Code


Consults Instructions for use :

For In Vitro Diagnostic Use

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

***ForLabUseOnly**