PRODUCT INFORMATION

Product Type: PETRI DISHES 90mm

Cat No. PD035 - MUELLER HINTON AGAR

Intended Use:
Muller Hinton Agar is used for antimicrobial disc diffusion susceptibility test for common and rapidly growing bacteria.

Principle and Uses:
Muller Hinton Agar contains low levels of Thymine and Thymidine and controlled levels of Calcium and Magnesium. Beef extract and Acid hydrolysate of casein supply amino acids and other substances, minerals, vitamins, Carbon and nutrients. For toxic substances that may be present in the medium, Starch acts as a protective colloid. Hydrolysis of Starch during autoclave procedure provides a small amount of Dextrose. The method for this product uses discs which contain a known concentration of antimicrobial agent. The diameters of the clearing zone around the disc correlate with minimal inhibitory concentrations (MIC). Test includes a standardized suspense of the organism which is then swabbed all over the surface of the plate. Then, paper discs of antibiotic or other antimicrobial agent are placed on the surface of the plate, the plate is incubated and zones of clearing around each disc are measured. The result will be then compared to those determined by the current CLSI document in order to determine if the organism is susceptible, intermediate or resistant to the agent tested.

Composition
Beef extract - 2g/L,
Acid Hydrolysate of Casein - 17.5g/L,
Starch - 1.5g/L,
Agar - 17g/L

Storage: 2-8°C
Appearance: light amber
pH Range: 7.2 - 7.4

Package contents: 10 plates in a package
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Petri dishes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Petri Dishes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use.

Waste Disposal
After interpretation all plates should be destroyed by standard incineration methods.

Performance Testing Results:

TEST	ATCC	Incubation Temp. (℃)	Incubation Cond	Reaction 1	Antibiotic 1	Antibiotic 2	Antibiotic 3	Antibiotic 4	Antibiotic 5	Antibiotic 6
Pseudomonas aeruginosa	27853	33-37 ℃	Aerobic, 18 hours	Sensitive	IMP	ERTA	CAZ	TOBR		
Escherichia coli	25922	33-37 ℃	Aerobic, 18 hours	Sensitive	SXT	AMP	NAL	TC	CAZ	
Staphylococcus aureus	25923	33-37 ℃	Aerobic, 18 hours	Sensitive	SXT	OX	PEN	TC	ER	VAN
Enterococcus faecalis	29212	33-37 ℃	Aerobic, 18 hours	Sensitive	SXT					

CLSI specifications: M100s performance standards for antimicrobial susceptibility testing - current edition, Tables: disk diffusions: quality control ranges.
The inhibition zone diameter in mm should meets the acceptance limits described in CLSI standard documents.

Abbreviation	Antibiotic Name
IMP	Imipenem
ERTA	Ertapenem
CAZ	Ceftazidime
TOBR	Tobramycin
SXT	Sulfamethoxazole-Trimethoprim
AMP	Ampicillin
NAL	Nalidixic Acid
TC	Tetracycline
OX	Oxacillin
PEN	Penicillin G
ER	Erythromycin
VAN	Vancomycin

The exact zone diameter breakpoints can vary depending on the bacterial species tested and the guidelines used (CLSI or EUCAST). Always consult the latest reference tables for your specific organism and laboratory standard.

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