Technical Data Sheet

PRODUCT: **MUELLER HINTON** W/ 5% HORSE BLOOD + 20mg/L β-NAD (MH-F)

REFERENCE: **010704, 090704**

IVD

Date 1st Edition: 7th 2009
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DESCRIPTION

MUELLER HINTON W / 5% HORSE BLOOD + 20mg / L β-NAD is a material for the study of the antimicrobial susceptibility of *Pneumoniococcus* and other *Streptococci*, *Haemophilus* and *Moraxella*.
This material was developed in accordance with EUCAST recommendations [European Committee on Antimicrobial Susceptibility Testing]

PRINCIPLE OF THE METHOD

The material is prepared to have low concentrations of thymine and thymidine as well as the appropriate levels of calcium and magnesium ions.
When the material is enriched with horse blood, the zone of inhibition of certain microbes and not of enterococci is significantly increased.
The addition of 20 mg / l β-NAD makes it possible to develop demanding bacteria while guaranteeing minimal inhibition of the components of the composition to the effect of antimicrobial susceptibility testing.

FORMULA	g/litre
Beef Extract	2.0
Acid Hydrolysed Casein	17.5
Starch	1.5
Agar No. 1	17.0
Calcium ions	50-100mg/litre
Magnesium ions	20-35mg/litre
β-NAD	0,02
Horse Blood	50ml

Appearance: Red - brittle unclean due to the addition of blood.
Final pH 7.3 ± 0.2 at 25 °C.

PRECAUTIONS

To MUELLER HINTON W/ 5% HORSE BLOOD + 20mg/L β-NAD Is an in vitro laboratory diagnostic material and should only be handled by specialist laboratory staff.
This material contains peptones and animal origin extracts.
Certificates of origin and animal health status do not fully guarantee the absence of pathogens that could be contagious. It is therefore recommended that these materials be treated as potentially infectious and in compliance with the usual measures of safety (not taken by the digestive or respiratory tract).
The dishes should always be handled with gloves and in Laminar Flow Class II, to avoid contamination mainly from saprophytic fungi.
If the plate is cracked or the sachet spoilt, do not use it.
Do not use the plates if they show signs of microbial contamination.
The thickness of the agar should be 4 - 5 mm and the material should be without cracks, dryness or other signs of spoilage.
After the expiration date the material is unsuitable for use.
In case of contact with the skin, wash immediately with plenty of soap and water.
Positive samples must be destroyed in accordance with the hygiene rules laid down for the handling of infectious specimens.

STORAGE CONDITIONS

Plates should be stored at 2 - 8 ° C in their packaging until they are used.
Prolonged storage at a temperature below 6 °C creates enough moisture in the material with risk of contamination. Freezing even instantly destroys the material. Overheating should also be avoided.
Plates can be used until the expiry date on the label.
If you open the airtight package of the dish by mistake, you can store it in the refrigerator for 5-7 days after sealing it with a profiled or sachet.
For transport, our stability studies showed that the plates may remain at 18 - 25 ° C for 4 days or at 30 - 40 ° C for 48 hours, without affecting the performance of the product.

USAGE

Unpack and place the dishes in the incubator until they warm up a little 20-25 ° C.
Refer to EUCAST standard procedures (1) to perform the antimicrobial test
Sensitivity.

READING AND INTERPRETATION

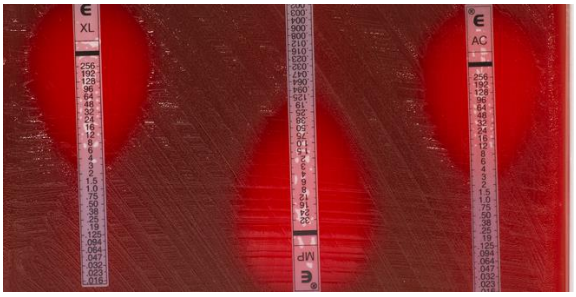
Refer to EUCAST standard procedures (2,3). After incubation, measure the bacterial inhibition zone around the antibiotic tray. Sensitivity of the strain to each antibiotic being tested can be determined based on the resulting values
(E: Sensitivity, ME: Moderately Sensitive and A: Durable).
Only the zone of bacterial growth inhibition
it should be measured and not the haemolysis zone
is observed with some strains.
Note: For the correct interpretation of the test colonies must be in full development.

MICROBIOLOGICAL PERFORMANCE CHECK

(Incubation: 35 ± 2 °C for 18 - 24 h).

Microorganism	Erythromycin 15 μg	Ampicillin 2 μg	Nalidixic acid 30 μg
Streptococcus pneumoniae ATCC 49619	*26 - 32	Resistance	Resistance
Haemophilus influenzae ATCC: 49247	Resistance	*19 - 25	*27 - 33

* Suspension zone diameter in mm



Quality control of the sensitivity test should be is carried out in accordance with EUCAST recommendations.

Note: It is the responsibility of the user to carry out the Quality Control in consideration of the intended use of the material, and in accordance with the applicable local regulations (frequency, number of executives, incubation temperature and conditions, selection antibiotics, etc.).

METHOD LIMITATIONS

Despite the presence of blood and β-NAD, some demanding strains may not grow in this material.

For pneumococci, the detection of β- lactam in this material has been validated with only one disk oxacillin.

For the strain of Streptococcus pneumoniae ATCC® 49619 ™, inhibition zones other than those recommended by EUCAST may be observed for the following antibiotics: oxacillin, tetracycline, chloramphenicol, linezolid, rifampicin.

For the expected suspension zones for these antibiotics, please refer to Table 3.

WASTE DISPOSAL OF WASTE

Materials that do not show any growth can be considered non-hazardous waste and discarded accordingly.

Plates that develop colonies must be disposed of in accordance with the instructions for contaminants or potential contaminants.

The laboratory is responsible for the proper management of infectious waste in accordance with its nature and degree of risk and should handle and discard it (or assign its management and disposal) in accordance with the applicable regulations.

SPECIFICATIONS

MUELLER HINTON W/ 5% HORSE BLOOD + 20mg/L β-NAD - CE

PRODUCT	CODE	PACKING	STORE	SELF LIFE
Plate 9cm	010704	10 pieces	2 – 8 °C	45 days
Plate 12cm	090704	5 pieces	2 – 8 °C	45 days

It is produced in Greece by the company Bioprepare in accordance with the requirements of the European Directive 2017/746.

BASIC UDI-DI: 521203771414010403SE. EDMA: (14 01 04 03) Susceptibility Test Media (Plates).

The Bioprepare company has been certified according to the standards: EN ISO 9001:2015 / ΕΛΟΤ EN ISO 13485:2016 DY8d/1348/2004

BIBLIOGRAPHY

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2. EUCAST breakpoint tables for interpretation of MICs and zone diameters – version 1.1, April 2010 (www.eucast.org).
3. EUCAST disk diffusion method for antimicrobial susceptibility testing – version 1.0, April 2010 (www.eucast.org).
4. EUCAST recommended strains for internal quality control – version 1.2, April 2010 (www.eucast.org). American Public Health Association. (1950). Diagnostic Procedures and Reagents. 3rd edn., A.P.H.A., New York. NCCLS. (1986). Performance standards for antimicrobial susceptibility testing – second informational supplement.

IN VITRO MANUFACTURER'S DATA

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