ALLIANCE BIO EXPERTISE

Reference: FLWR3036 **A.B.E. - Technical Data Sheet**

Product: **Mueller Hinton Agar**

Specification

Widely recommended medium for antibiotic and Sulfonamides susceptibility testing, according to the Kirby-Bauer and the Ericsson methods.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottle Bottle 125 ml with: 100 ± 3 ml	1 box with 10 bottles 125 ml. Plastic screw inner cap.	12 months	8-25 ºC

Composition

Composition (g/l):
Peptone..... 17.5
Beef infusion solids.....2.00
Starch..... 1.50
Agar..... 17.0

Description /Technique

To use, the contents of the bottle should be poured into plates. The melting of the culture medium should be carried out according to the manufacturer's instructions, either in a water bath or microwave oven. Never apply direct heat to melt a medium. The melting temperatures and times depend on the shape of the container, the volume of medium and the heat source. Before melting any medium loosen the screwcap of the container to avoid breaking the container. The medium should be melted only once and used. Media with agar should not be melted repeatedly as their characteristics change with each remelting. Overheating should be avoided as much as prolonged heating, especially with regard to media with an acidic or alkaline pH. Once melted pour the plates using aseptic techniques.
Mueller-Hinton Agar has proved to be one of the most efficient media for use in anti-bacterial susceptibility testing. Without the addition of blood it can be used for sulfonamide sensitivity testing since it is free from most of its antagonists (nucleotides, etc.).
Adjust suspensions of isolates to be tested to a density equivakent to a 0.5 MacFarland standard.
Spread the plate by spreading with a soaked swab each inoculum onto the surface evenly in three directions according to the Kirby-Bauer methodology.
After having allowed the agar surface to dry for 10 to 15 minutes, apply the antibiotic disks or the E-test strips to the surface.
Incubate the plates right side up at temperatures and during times according to the microorganism tested (Usually for 24 hours in 5-7% carbon dioxide enriched atmosphere)
Read plates after the recommended incubation period only if sufficient growth is seen and the inhibition zones or ellipses are clearly visible.
Read the MIC where the ellipse intersects the scale or the diameter of the different inhibition zones.
Each laboratory must evaluate the results according to their specifications, isolates tested, antibiotics applied and CLSI interpreative guidelines, EUCAST, or Manual E- Test.

Note: The solid mediums can be melted in different ways: autoclave, bath and, if the customer considers appropriate, also the microwave. Whenever the microwave option is chosen, it is necessary to take certain safety measures to avoid breaking of the containers, such as loosening the screw cap and putting the bottle or tube in a water bath in the microwave. The fusion temperature and time will depend on the shape of the container, the volume of medium and the heat source. Avoid overheating as both the heating periods.

Precautions
For in vitro diagnostic use. Do not reuse. For professional use only.
Do not use the product if it shows evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Quality control

Physical/Chemical control

Color : Yellowish pH: 7.4 ± 0.2 at 25ºC

Microbiological control

Melt the medium pour into plate and inoculate.

Spread with swab from 0.5 Mac Farland inoculum.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 35 ± 1 ºC, reading after 18 ± 2h.

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Inhibition halo
Ps. aeruginosa ATCC® 27853, WDCM 00025	Inhibition halo
Enterococcus faecalis ATCC® 29212, WDCM 00087	Inhibition halo
Stph. aureus ATCC® 29213, WDCM 00131	Inhibition halo

Sterility control

Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

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