

Technical Data Sheet

NutriSelect® prime MUELLER-HINTON (MH) agar acc. FDA-BAM

Ordering number: 1.03872.0500

For the disc diffusion antimicrobial susceptibility testing of common, rapidly growing bacteria from food and animal feed, water and other samples.

This culture medium complies with the specifications given by FDA-BAM Medium M107.

Mode of Action

This culture medium contains beef extract and casein hydrolysate to provide nitrogen, vitamins, carbon, amino acids and other nutrients to support the growth of microorganisms. Agar acts as the solidifying agent and starch is added to absorb any toxic substances in the medium.

Typical Composition

Specified by FDA-BAM Medium M107		NutriSelect® prime MUELLER-HINTON (MH) agar acc. FDA-BAM	
Beef, infusion from 300 g		Infusion from meat*	2.0 g/l
Acidicase Peptone or Casamino Acids	17.5 g/l	Casamino hydrolysate**	17.5 g/l
Starch	1.5 g/l	Starch	1.5 g/l
Agar	17.0 g/l	Agar-agar***	13.0 g/l
Water	1 liter	Water	n/a
pH at 25 °C	7.3 ± 0.2	pH at 25 °C	7.3 ± 0.2

*Infusion from meat is equivalent to infusion of beef.

**Casamino hydrolysate is equivalent to casamino acids.

*** Agar-Agar is equivalent to other different terms of agar.

Preparation

Dissolve 34.0 g in 1 liter of purified water. Heat in boiling water and agitate frequently until completely dissolved. Autoclave (15 minutes at 121 °C). Pour to plates.

The dehydrated medium is a powder with beige color.

The prepared medium is clear to opalescent and yellowish-brown green. The pH value at 25 °C is in the range of 7.1 - 7.5.

Before inoculation, allow the prepared medium to equilibrate at room temperature if it was stored at a lower temperature.

There should be no visible moisture on the surface of the plates before use. When moisture is present, the plates should be dried for the minimum time required to remove visible moisture, following the procedure as described by EN ISO 11133.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

Inoculate and incubate as directed by the method used.

Storage

Store at +15 °C to +25 °C, dry and tightly closed. Do not use clumped or discolored medium.

Protect from UV light (including sun light). For *in vitro* use only.

Microbiological Performance

Test disc / Test strain	Specification Inhibition zone diameter
Ampicillin 10 µg / <i>Escherichia coli</i> ATCC® 25922 [WDCM 00013]	16 – 22 mm
Tetracyclin 30 µg / <i>Escherichia coli</i> ATCC® 25922 [WDCM 00013]	18 – 25 mm
Gentamicin 10 µg / <i>Escherichia coli</i> A ATCC® 25922 [WDCM 00013]	19 – 26 mm
Polymyxin B 300 U/IE / <i>Escherichia coli</i> ATCC® 25922 [WDCM 00013]	12 – 17 mm
SXT* 1.25 µg + 23.75 µg / <i>Escherichia coli</i> ATCC® 25922 [WDCM 00013]	24 – 32 mm
Ampicillin 10 µg / <i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	27 – 35 mm
Tetracyclin 30 µg / <i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	19 – 28 mm
Gentamicin 10 µg / <i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	19 – 27 mm
Polymyxin B 300 U/IE / <i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	7 – 13 mm
SXT* 1.25 µg + 23.75 µg / <i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	24 – 32 mm
Gentamicin 10 µg / <i>Pseudomonas aeruginosa</i> ATCC® 27853 [WDCM 00025]	16 – 23 mm
SXT* 1.25 µg + 23.75 µg / <i>Enterococcus faecalis</i> ATCC® 33186	≥ 20 mm

* SXT: Sulfamethoxazole + Trimethoprim

Incubation: 24 h at (35 ± 1) °C, aerobic.

Please refer to the actual batch related Certificate of Analysis.

Literature

EN ISO International Standardisation Organisation. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media + Amendment 1 + Amendment 2. EN ISO 11133:2014/Amd1:2018/Amd2:2020.

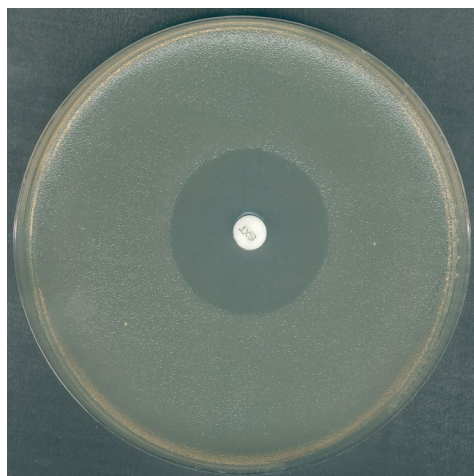
FDA-BAM (2018): Media Index for BAM - BAM Media M107: Mueller-Hinton Agar. Food and Drug Administration - Bacteriological Analytical Manual.

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MacFaddin, J.F. (1985): Media for isolation – cultivation – identification – maintenance of medical bacteria. Vol 1. 545 - 552. Williams & Wilkins, Baltimore, MD, USA.

Mueller, H.J., and Hinton, J. (1941): A protein-free medium for primary isolation of the Gonococcus and Meningococcus. Proc. Soc. Expt. Biol. Med., **48**: 330-333.



Escherichia coli ATCC® 25922
(WDCM 00013)
SXT 1.25 µg + 23.75 µg

Ordering Information

Product	Cat. No.	Pack size
NutriSelect® prime MUELLER-HINTON (MH) agar acc. FDA-BAM	1.03872.0500	500 g