PRODUCT CODE: 413787

Mueller-Hinton Agar (Dehydrated Culture Media) for microbiology

Preparation

Suspend 38 grams of the medium in one litre of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. Cool to 45 or 50°C and add defibrinated blood if desired. The blood mixture should be chocolated by heating to 80°C for 10 minutes if *Neisseria* development is desired. DO NOT OVERHEAT.

To remelt the cold medium, heat as briefly as possible. The prepared medium should be stored at 8-15°C. The colour is amber, slightly opalescent without blood and red with blood. The dehydrated medium should be homogeneous, free-flowing and cream in colour. If there are any physical changes, discard the medium.

Uses

MUELLER HINTON AGAR, together with Mueller Hinton Broth, is used for testing the antimicrobial susceptibility of rapidly growing aerobic organisms from clinical samples. The medium can be used with complete confidence because it is rich in nutrients, able to grow fastidious organisms.

The use of a medium with suitable growth characteristics is essential to test the susceptibility of microorganisms to antibiotics. It is also recommended for testing most commonly encountered aerobic and facultative anaerobic bacteria. Beef infusion and Acid Casein peptone (H) provide nitrogen, vitamins, minerals and amino acids essential for growth. The starch absorbs any toxic metabolites produced. Bacteriological agar is the solidifying agent.

Mueller Hinton Agar can be used to cultivate *Neisseria* specimens, the recommended incubation of plates being at a temperature of 35 ± 2°C in a CO2 atmosphere for 18 – 24 hours. It has become the standard medium for the Bauer Kirby method and its performance is specified by the NCCLS.

Composition

See in Data Sheet (TDS).

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Microbiological Test

Response of the sensitivity test to the different antibiotics, using standard strains incubating at 35 ± 2 ºC and observed at 24 hours.

TEST DISCS	STAINS TEST									
	Escherichia coli ATCC 25922		Staphylococcus aureus ATCC 25923		Enterococcus faecalis ATCC 29212		Pseudomonas aeruginosa ATCC 27853		Staphylococcus aureus ATCC 29213	
	CLSI	EUCAST	CLSI	EUCAST	CLSI	EUCAST	CLSI	EUCAST	CLSI	EUCAST
Ampicillin 10 µg	15-22		27-35	-	-	-	-	-	-	-
Tetracycline 30 µg	18-25	-	24-30	-	-	-	-	-	-	23-31
Gentamicin 10 µg	19-26		19-27	-	-	-	17-23		-	19-25
Polymyxin B 300 µg	13-19	-	-	-	-	-	14-18	-	-	-
SXT: Trimethoprim (1.25 µg) + Sulfamethoxazole (23.75 µg)	23-29		24-32	-	-	26-34	-	-	-	26-32

Storage

Once opened keep powdered medium closed to avoid hydration.

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