

MAST® Culture Media and Supplements

Technical Information Sheet

Product Code DM 170



Mueller Hinton Agar

A standardised medium for susceptibility testing.

1. Description

In 1941 Mueller and Hinton¹ described a medium for the isolation of gonococci and meningococci, which was later used for susceptibility testing of gonococci by Goodale.² Since that time, Mueller Hinton medium has become generally accepted in the U.S.A. as a routine susceptibility test medium. Bauer *et al.* (1966)³ described its use in their standardised susceptibility test method which has been adopted by the Food and Drug Administration U.S.A. (1972)⁴. The International Collaborative Study Group (1971)⁵ also recommended this medium with 5% defibrinated blood, for the

international standard disc susceptibility test method.

Mast Mueller Hinton Agar has been designed to conform to these recommendations and is a highly nutritious medium, which with added blood (5%) is suitable for the growth of most fastidious organisms. It is low in sulphonamide and tetracycline antagonists giving clear zones with these drugs. The agar used has been modified by ion exchange to minimise the variable effects that batches of agar may have on the diffusibility and activity of certain drugs.^{6,7}

2. Technical Formula*

Formula	grams per litre
Casein hydrolysate	17.5
Beef infusion from 300g	2.0
Starch	1.5
Agar	17.0
pH approx. 7.3 ± 0.1 at 25°C	

3. Directions

1. Suspend by swirling 38g of powder in 1 litre or the contents of the sachet in the stated volume of distilled or deionised water.
2. Autoclave at 121°C (15p.s.i.) for 15 minutes. DO NOT OVERHEAT. Overheating hydrolyses the starch. If required, add 5% defibrinated blood on cooling to 50°C.
3. Allow to cool before distribution.

4. References

1. Mueller JH, Hinton J. *Proc Soc exp Biol Med.* 1941; **48**: 330-333
2. Goodale WT, Gould RG, Schwab L, Winter Virginia G. *J Am med Ass.* 1943; **123**: 547-549
3. Bauer AW, Kirby WMM, Sherris J, Turck M. *Am J Clin Path.* 1966; **45**: 493-496
4. Food & Drug Administration U.S.A. Federal Register 1972; **37**: 20525.
5. International Collaborative Study Group Acta path microbiol scand. 1971; section B 1971, supp. 217.
6. Hanus FJ, Sands JG, Bennett EO. *Appl Microbiol.* 1967; **15**: 31-34
7. Garrod LP, Waterworth PM. *J Clin Path.* 1969; **22**: 534-538



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*Formulation may be modified to meet performance criteria

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