



Nutrient Agar

LAB 8

Description

A general purpose medium for the cultivation of organisms that are not demanding in their nutritional requirements e.g. organisms that can be isolated from air, water, dust etc. Nutrient Agar is suitable for teaching and demonstration purposes, it is isotonic and can be enriched with biological fluids such as sterile blood and egg yolk.

Formula	g/litre
Peptone	5.0
Beef Extract	3.0
Sodium chloride	8.0
Agar No. 2	12.0

Method for reconstitution

Weigh 28 grams of powder, disperse in 1 litre of deionised water. Allow to soak for 10 minutes, swirl to mix then sterilise by autoclaving for 15 minutes at 121°C. Cool to 47°C, mix well then pour plates.

Appearance: Buff, opalescent gel.

pH: 7.3 ± 0.2

Minimum Q.C. organisms: *S. aureus* NCIMB 50080
E. coli NCIMB 50034

Storage of Prepared Medium: Plates – up to 7 days at 2-8°C in the dark. Capped containers – up to 3 months at 15-20°C in the dark.

Inoculation: Surface streaking for single colonies.

Incubation: Temperature and time to suit organisms. Usually aerobic.

Growth Characteristics				
organism	colony size (mm)	shape & surface	colour	other
<i>S. aureus</i>	1.0-2.0	CV.E.G.	White-Yellow	
Other <i>Staphylococcus</i> spp	0.5-2.0	CV.E.G.	White-Yellow	
<i>Strep. pyogenes</i>	P.P.-0.5	CV.E.G.	Transp.	
<i>E. coli</i>	1.5-2.5	CV.E.G.	Grey	
<i>Proteus</i> spp.	spreading –		Grey	fishy odour
<i>Klebsiella</i> spp.	2.0-4.0	CV.E.G.	Grey	muroid
<i>Bacillus</i> spp.	2.0-6.0	various	Grey	may spread
<i>Ps. Aeruginosa</i>	2.0-4.0	F.C.R.D.	Grey-Green	odour if pigmented