BLOOD AGAR BASE W/ LOW pH TM 040

For isolation and cultivation of fastidious organisms after addition of blood

Composition

Ingredients	Gms/Ltr.
Beef heart, infusion from	500.00
Agar	15.00
Tryptone	10.00
Sodium chloride	5.00

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.
[10.0gm of beef heart, infusion from is equivalent to 500gm of infusion from extract]**

Instructions for Use

Dissolve 40.0gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool to 40-50°C and aseptically add 5% v/v sterile defibrinated blood. Mix well and dispense into sterile petri plates.

Appearance: Light amber colour, and trace to slightly hazy. With 5% sheep blood, medium is cherry cherry red colour, clear to slightly opaque gel
pH (at 25°C): 6.8 ± 0.2

Principle

BLOOD AGAR BASE W/ LOW pH medium is used for the isolation and cultivation of fastidious organisms after addition of blood. The Blood Base w/ low pH medium contain highly nutritious extract of Beef heart, which provide vitamins, salts and other organic nitrogen compounds. Sodium chloride provides essential ions and maintains electrolyte balance. Tryptone provides additional growth factors in the medium. Agar is a solidifying agent. Supplementation with blood (5%) provides additional use in isolation, cultivation, and determination of hemolytic reactions, of fastidious pathogenic microorganisms. Haemolytic patterns may vary with the source of animal blood or type of base medium used showed none of the hemolytic activity with good growth pattern of culture after incubation period of 48 hours. By using sheep blood, V factor destroying enzyme (nucleotidase) which prevents the growth of *Hemophilus* species on sheep blood agar unless another microorganisms, eg., *Staphylococci*, provides the V factors. Small amounts of reducing sugars inhibit the expression of β-hemolytic, and β -hemolytic *Streptococci* may develop a green zone or ring of hemolysis.

Interpretation

Cultural characteristics observed after inoculating (10^3CFU / ml), on incubation at 35-37°C for 18- 48 hour.

Microorganisms	ATCC	Inoculum CFU/ml	Growth	Recovery rate	Haemolysis	Appearance of colony
Staphylococcus aureus	25923	$>10^3$	Luxuriant	>=70 %	beta	White/grey colonies
Streptococcus pneumoniae	6303	$>10^3$	Good	>=70 %	alpha	Pale straw colour colonies
Streptococcus pyrogenes	19615	$>10^3$	Luxuriant	>=70 %	Beta	Pale straw colour colonies
Escherichia coli	25922	$>10^3$	Luxuriant	>=70 %	--	-------

References

1. Waterworth, M. Pamela, Brit. J. Exp. Pathol., 36, 186 (1955).
2. Hunter, D. and Kearns M., Brit. Vet. J.,133, 486. (1977).
3. Skirrow, M.B., B.M.J.ii, 9. (1977).