

TM 1087 - SHEEP BLOOD AGAR BASE (W/O BLOOD)

INTENDED USE

For improved haemolytic reactions of organisms.

PRODUCT SUMMARY AND EXPLANATION

Haemolysins are exotoxins produced by bacteria that lyse red blood cells. The haemolytic reaction can be visualized on blood agar plates. On blood agar plates colonies of haemolytic bacteria may be surrounded by clear, colourless zone where the red blood cells have been lysed and the haemoglobin destroyed to a colourless compound. This is beta haemolysis. Other types of bacteria can reduce haemoglobin to methaemoglobin which produces a greenish zone around the colonies and is called alpha haemolysis. Gamma haemolysis is no haemolysis where no change in the medium is observed. Blood Agar Base No. 2, supplemented with sheep blood is used to study haemolytic reactions (patterns) of organisms. But this gave mixed haemolytic (a and b) reactions due to the physiological differences between sheep blood and horse blood.

Sheep Blood Agar Base with added sheep blood was developed to allow maximum recovery of organisms without interfering with their haemolytic reactions. Sheep Blood Agar Base was formulated to be compatible with sheep blood and give improved haemolytic reactions of organisms.

Sheep Blood Agar Base showed considerable improvement and the expected beta haemolytic reactions with *S. pyogenes* in comparison to other blood agar bases supplemented with blood.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	14.000
Peptone	4.500
Yeast extract	4.500
Sodium chloride	5.000
Agar	12.500

PRINCIPLE

Tryptone, peptone and yeast extract provide nitrogen, carbon, amino acids and vitamins. Sodium chloride maintains the osmotic balance.

INSTRUCTION FOR USE

- Dissolve 40.5 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add 7% sterile sheep blood.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Basal medium yields light yellow coloured clear gel without any precipitate, on addition of 7% sheep blood, cherry red coloured opaque gel forms in Petri plates.

pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after an incubation with added 7% v/v sterile sheep blood.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Haemolysis	Incubation Temperature	Incubation Period
<i>Streptococcus pneumoniae</i>	6303	50-100	Luxuriant	≥70%	Alpha	35-37°C	18-24 Hours
<i>Streptococcus pyogenes</i>	19615	50-100	Luxuriant	≥70%	Beta	35-37°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual Clinical Microbiology, 11th Edition. Vol. 1.
3. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippincott Company.
4. Pelczar M. J. Jr., Reid R. D., Chan E. C. S., 1977, Microbiology, 4th Ed., Tata McGraw-Hill Publishing Company Ltd, New Delhi.
5. Spector W. S., (Ed.), 1961, Handbook of Biological Data, W. B. Saunder Company, Philadelphia and London.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**



Revision: 08 Nov., 2019

