Tryptose Blood Agar Base

Cat. 1162

Highly nutritious medium especially developed to prepare blood agar which enhances the development of fastidious organisms

Practical information

Aplications	Categories
Enrichment	Fastidious microorganisms

Industry: General cultivation

Principles and uses

Tryptose Blood Agar Base is is used with blood in isolating, cultivating and determining the hemolytic reactions of fastidious microorganisms. The agar base medium with tryptose has no dextrose because dextrose interferes with hemolytic reactions. Tryptose Blood Agar Base with added blood gives good haemolytic reactions and without blood it will sustain good to excellent growth of many demanding organisms. Tryptose Blood Agar Base is a nutritious infusion-free basal medium typically supplemented with 5-10% sheep, rabbit or horse blood for use in isolating, cultivating and determining hemolytic reactions of fastidious pathogenic microorganisms.

Tryptose is the source of nitrogen, carbon and amino acids in Tryptose Blood Agar Base. Beef extract provides additional nitrogen. Sodium chloride maintains osmotic balance. Agar is the solidifying agent. Supplementation with 5-10% blood provides additional growth factors for fastidious microorganisms and is used to determine hemolytic patterns of bacteria.

Formula in g/L

Bacteriological agar	12	Beef extract	3
Sodium chloride	5	Tryptose	10

Preparation

Suspend 30 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121ºC for 15 minutes. To prepare the blood agar, cool to 45-50ºC and add 7% of sterile blood. Mix well avoiding bubble formation, and dispense into plates.

Instructions for use

Use standard procedures to obtain isolated colonies from specimens. Incubate at 35 ± 2°C for 24 - 48 hours.

Results:
1.Alpha-hemolysis: greenish discoloration of medium
2.Beta-hemolysis: clear zone surrounding colony
3.Gamma-hemolysis: no change

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	With blood: opaque cherry red	7,2 ± 0,2

Microbiological test

Incubation conditions: (35±2 ºC / 24-48 h)

Microorganisms	Specification	Characteristic reaction
Staphylococcus epidermidis ATCC 12228	Good growth	Hemolisis: gamma
Neisseria meningitidis ATCC 13090	Good growth	Hemolisis (-)
Streptococcus pyogenes ATCC 19615	Good growth	Hemlisis: beta
Staphylococcus aureus ATCC 25923	Good growth	Hemolisis: beta/gamma
Streptococcus pneumoniae ATCC 6305	Good growth	Hemolisis: alpha

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

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