

Product Name :
Arginine Dihydrolase Broth

Product Code :
NLAB-CHEMICALSIND21017

Description :

Arginine Dihydrolase Broth

Technical Specification :

Arginine Dihydrolase Broth

Arginine Dihydrolase Broth is used for detection of arginine dihydrolase producing microorganisms.

Directions

Suspend 19.31 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely and distribute in 13x100mm tubes. Sterilize by autoclaving at 115°C for 15 minutes. Allow the tubes to cool in an upright position

Principle And Interpretation

Arginine dihydrolase production by various members of enteric bacteria aids in differentiating bacteria with closely related physiological characteristics. Decarboxylase Media used for the detection of arginine dihydrolase and lysine and ornithine decarboxylase was first introduced by Moeller. Arginine decarboxylase enzyme is also known as Arginine dihydrolase. Bacteria producing arginine dihydrolase enzyme decarboxylates arginine present in this medium to putrescine. These types of media are used to differentiate bacteria on the basis of their decarboxylating activity towards the amino acids. Peptone provide the necessary nutrients to the organisms while L-arginine stimulates the arginine dihydrolase synthesis. Dipotassium phosphate buffers the medium while sodium chloride maintains the osmotic balance. The production of amine, putrescine, elevates the pH. Bromocresol purple is the pH indicator which forms purple colour in alkaline condition. Colour change from purple to yellow and then back to purple is positive reaction. In differentiation of Enterobacteriaceae, control tubes without arginine must be used. If the tubes give positive purple reaction the test is considered as negative.

Quality Control

Appearance: Light yellow to grey homogeneous free flowing powder

pH: 5.80-6.20

Gelling: Semisolid, comparable with 0.3% Agar gel.

Reaction: Reaction of 1.93% w/v aqueous solution at 25°C. pH : 6.0±0.2

Colour and Clarity of prepared medium: Purple coloured clear to slightly opalescent gel forms in tubes as butts.

Naugralabequipments

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