Lactose Broth | AS-1263

Used to detect the presence of *coliform* organisms, as a pre-enrichment broth for *salmonella* and in general, for the study of lactose fermentation bacteria.

Lactose broth is a non-selective enrichment medium. The main application of lactose broth is to presume detection of *coliform* bacteria in food, dairy, and water. Peptone and beef extract are included as sources of nutrients, and lactose is the main carbohydrate used in fermentation. Durham tubes contain gas that is produced when lactose is fermented by *coliform* bacteria. This medium is frequently used as a pre-enrichment stage for the isolation of *Salmonella* and is advised by the APHA for the detection of *coliforms*. Double-strength Lactose Broth may be required for large sample volumes to retain the proper concentrations of nutrients.

Composition (gr/L)	
Beef extract	3
Peptone	4
Lactose	5
Final pH at 25°C	6.9 ± 0.2

Preparation

Dissolve 13 g of the powder into 1 litter distilled water. Pour into test tubes. Use 10 ml amounts for 1 ml or less sample. Autoclave at 121 °C for 15 minutes. Cool as soon as possible.

Quality Control

Dehydrated Appearance: Light beige to light tan, free flowing, homogeneous.
Prepared Appearance: Light amber, clear.
Reaction of 1.3% Solution at 25°C: pH 6.9 ± 0.2

Microbial Test Results

Incubate at 35±2 °C for 18 to 48 hours.

Organism (ATCC)	Recovery	Gas
Escherichia coli (25922)	Good	+
Enterobacter aerogenes (13048)	Good	+
Enterococcus faecalis (19433)	Good	-
Salmonella enterica (6539)	Good	-

Storage

Keep the container at 15-30 °C and prepared medium at 2-8 °C.