

TGEA Medium (Tryptone Glucose Yeast Extract Agar)

Cat. 1190

For total count of aerobics organisms in water, dairy products, etc.

Practical information

Applications	Categories
Selective enumeration	Mesophilic aerobic

Industry: Water / Dairy products

Principles and uses

TGEA Medium (Tryptone Glucose Yeast Extract Agar) is a medium used for the total count of aerobic mesophilic bacteria in water and dairy products.

Casein Peptone and Beed Extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Dextrose is the fermentable carbohydrate providing carbon and energy. Bacteriological agar is the solidifying agent.

Formula in g/L

Glucose	1	Bacteriological agar	18
Beef extract	3	Casein peptone	5
Yeast extract	1		

Preparation

Suspend 28 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. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes.

Instructions for use

Pour plate technique:

- Inoculate 1 ml of the sample, (if necessary 2 continuous decimal dilutions to be able to count between 15-300 colonies per plate).
- Put 12-15 ml per plate of agar cooled to 44 - 47°C in each Petri dish. The time of preparation shouldn't exceed 45 minutes.
- Invert the plates and incubate at 35±2 °C for 24 hours.
- Post incubation, count the colonies.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Clear amber, slightly opalescent	7,0 ± 0,2

Microbiological test

Incubation conditions: (35±2 °C / 24 h)

Microrganisms	Specification
Bacillus cereus ATCC 11778	Good growth
Streptococcus agalactiae ATCC 13813	Good growth
Salmonella typhimurium ATCC 14028	Good growth
Escherichia coli ATCC 25922	Good growth
Staphylococcus aureus ATCC 25923	Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

Wehr and Frank (ed.). 2004. Standard methods for the examination of dairy products, 17th ed. American Public Health Association, Washington, D.C.
Bowers and Hucker. 1935.Tech. Bull. 228. NY State Agar. Exp. Sta.