Yeast Extract Agar, With Glucose (i23199)

For the plate count of organisms in water.

Industry: Water

Principles & Uses

Yeast Extract Agar, formulated based on Windle Taylor's prescription, serves for the plate count of microorganisms in water, especially those from natural sources. It includes yeast extract and ppancreatic digest of casein, providing vital nutrients like nitrogenous compounds and vitamin B complex. A decimal dilution bank with Ringer Solution is prepared from the water sample, and aliquots are plated on two parallel series. The molten agar is mixed with the sample, and plates are incubated at different temperatures. Counts are recorded after 24 hours at 35°C and after 3 days at 20-22°C, with preference for plates containing 30-300 colonies.

ISO 6222 recommends Yeast Extract Agar for enumerating bacteria, yeasts, and molds in various water types, including potable water.

Composition (gr/L)

Yeast Extract 10, Glucose 5, Agar 20.

Final pH: 6.5 ± 0.2 at 25°C

Preparation from dehydrated Powder

Suspend 35 g of the powder in 1 L of distilled water. Mix thoroughly. Autoclave at 121°C for 15 minutes.

Quality Control

Dehydrated Appearance: Cream to yellow colored free-flowing, homogeneous powder.

Prepared Appearance: Yellow colored clear to very slightly opalescent.

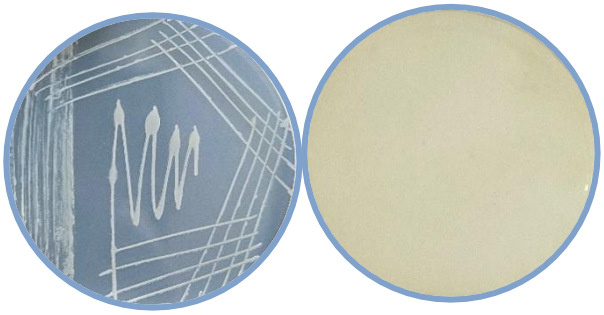
Reaction of 3.5% Solution at 25°C: pH 6.5 ± 0.2

Cultural Response

Cultural response was observed after 18 - 24 hours of incubation at 35 - 37˚C.

Organism (ATCC*)	Recovery
Enterobacter aerogenes (13048)	Good
Escherichia coli (25922)	Good
Staphylococcus aureus (25923)	Good
Pseudomonas aeruginosa (25853)	Good

*ATCC is a registered trade mark of the American Type Culture Collection.



Enterobacter aerogenes (left). Prepared Culture Media (right)

Storage

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