

Yeast Extract Agar, Without Glucose (i23617)

For the plate count of organisms in water.

Industry: Food

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 pancreatic 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)

Pancreatic digest of Casein 6 g, Yeast Extract 3 g, Agar 10 g.

Final pH at 25°C 7.2 ± 0.2

Preparation from dehydrated Powder

Suspend 19 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.

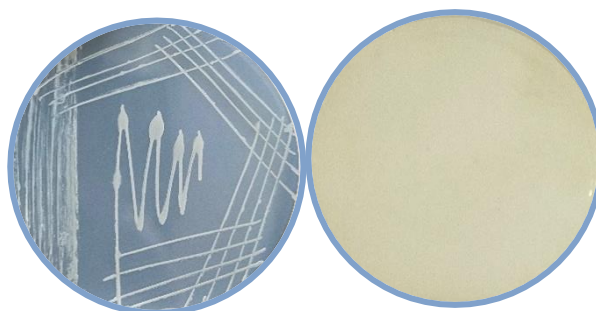
Reaction of 1.9% Solution at 25°C: pH 7.2 ± 0.2

Cultural Response

Prepare the medium per label directions. Inoculate the medium using the pour plate method. Dispense a sample volume or dilution of no more than 2 ml per plate. Incubate at 36 ± 2°C for 44 ± 2 hours.

Organism (ATCC*)	Recovery
<i>Escherichia coli</i> (25922)	Good growth, cream-coloured colonies
<i>Bacillus subtilis</i> (6633)	Good growth, straw colonies

*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.