

Beef Extract Agar (i23015)

Used as a general-purpose nutrient medium which can support growth of not particularly fastidious bacteria.

Industry: General cultivation

Principles & Uses

To cultivate pathogens and commensals for medical bacteriology studies, an artificial culture medium should mirror the human body's conditions. Beef Extract Agar, a versatile medium, is suggested for cultivating *Candida* species and conducting fermentation studies. It comprises beef extract and enzymatic digest of animal tissues, providing nitrogen and carbon. Additionally, sodium chloride is incorporated as an electrolyte source. This non-selective medium mimics the physiological environment, promoting the growth of a wide range of organisms relevant to medical research.

In medical bacteriology, where the majority of organisms studied are either pathogens or commensals, it is imperative to use culture media that simulate the conditions of the human body.

Composition (gr/L)

Enzymatic Digest of Animal Tissues 10 g, Beef Extract 3 g, Sodium Chloride 5 g, Agar 15 g.

Final pH at 25°C 7.6 ± 0.2

Preparation from dehydrated Powder

Suspend 33 g of the powder in 1 L of purified water. Heat to boiling to dissolve the medium completely. Autoclave at 121°C for 15 minutes.

Quality Control

Dehydrated Appearance: Fine, homogeneous, creamy to yellow.

Prepared Appearance: Yellow color, clear to slightly opalescent.

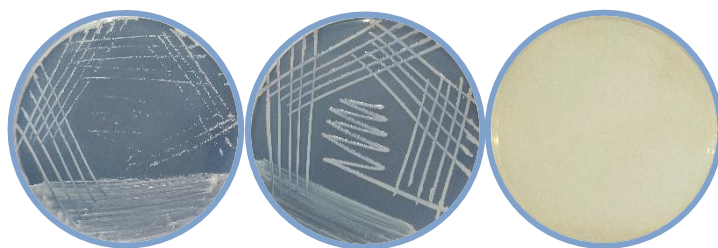
Reaction of 3.3% Solution at 25°C: pH 7.6 ± 0.2

Cultural Response

Cultural response was observed after incubation at 35 ± 2 °C for 18 – 24 hours.

Organism (ATCC*)	Recovery
<i>Candida albicans</i> (10231)	Very Good
<i>Escherichia coli</i> (25922)	Very Good
<i>Pseudomonas aeruginosa</i> (27853)	Very Good

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



Candida albicans (left). *Escherichia coli* (middle). Prepared culture Media (right).

The background of cultured plates has been darkened for better visibility of colonies.

Storage

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