

## Eugon LT100 Agar (i23800)

Solid medium used for the detection and enumeration of aerobic mesophilic bacteria, in cosmetic products with and without preservatives according to ISO 21149 standard.

Industry: Cosmetics

## Principles & Uses

Eugon LT 100 Medium Base, developed by Pelczar and Vera, is designed to support the cultivation of fastidious microorganisms like *Brucella*. This medium encourages eugonic (luxuriant) growth of bacteria that can be challenging to cultivate. It is especially effective for the growth of organisms such as *Bordetella* and *Neisseria*. The medium includes Peptones of casein and soybean meal, which provide essential nitrogen, vitamins, and amino acids for microbial growth. Glucose serves as the energy source, while L-Cystine and sodium sulfite are added to stimulate growth. Sodium chloride helps maintain osmotic balance. The high carbohydrate content, along with the high sulfur content, improves growth with chromogenicity. Additionally, the inclusion of lecithin and polysorbate 80 in Eugonic LT 100 Medium neutralizes antimicrobial agents, making it suitable as a neutralizing diluent.

This medium is particularly useful in medical bacteriology and in the food industry for the cultivation of fastidious microorganisms. Furthermore, it can be used to detect aerobic mesophilic bacteria after an enrichment step. It effectively promotes the growth of microorganisms, providing a high level of bacterial cultures for various applications.

The standard ISO 21149 recommends using an initial suspension of the sample of the cosmetic product in a selective liquid medium with neutralizing and dispersing agents (Eugon LT 100 Broth) for microbial analysis according to standardized procedures.

## Composition (gr/L)

Pancreatic Digest of Casein 15, Soybean meal 5, Sodium chloride 4, L-Cystine 0.7, Sodium Sulphite 0.2,

Glucose 5.5, Agar 5, Tween 80 5, Lecithin 1, Triton X-100 1.

Final pH at 25°C 7.0 ± 0.2

## Preparation from dehydrated Powder

Suspend 45.4 g of the medium in 1 Liter of distilled water. Mix thoroughly. Add 7 g of the supplement containing tween 80 solution. Heat with frequent agitation and boil for 1 minute to completely dissolve it completely. Autoclave at 121°C for 15 minutes. Cool as quickly as possible.

## Quality Control

Dehydrated Appearance: Beige, free-flowing.

Prepared Appearance: Yellow, very slightly opalescent after boiling and cooling the medium.

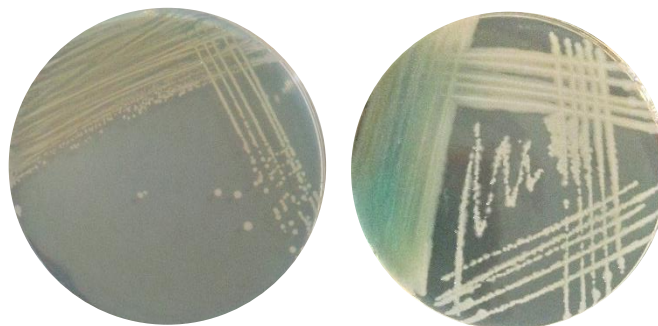
Reaction of 5.24% Solution at 25°C: pH 7.0 ± 0.2

## Cultural Response

Cultural characteristics observed after incubation at 35-37°C for 24 hours.

Organism (ATCC*)	Recovery
<i>Escherichia coli</i> (25922)	Good
<i>Pseudomonas aeruginosa</i> (27853)	Good
<i>Staphylococcus aureus</i> (25923)	Good
<i>Salmonella thyphi</i> (14028)	Good

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



*E. coli* on the left and *P. aeruginosa* on the right, with the background darkened for better visibility of colonies

## Storage

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